A PEOPLE WHO MEAN TO BE THEIR OWN GOVERNORS MUST ARM THEMSELVES WITH THE POWER WHICH KNOWLEDGE GIVES

NOTES ON THE STATE OF VIRGINIA

BY THOMAS JEFFERSON

THE FEDERALIST PAPERS PROJECT
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Introduction to Notes of the State of Virginia by Thomas Jefferson

The wide reputation and high value that have been accorded to the *Notes on Virginia* for over one hundred years make any attempt to praise it at this day little less than a work of supererogation. Its frequent republication is alone testimony sufficient to prove its unusual merit. Aside from its intrinsic value, it is of interest, as Jefferson’s most serious piece of book-making, and the one on which the larger part of his philosophical reputation was based during his lifetime. It was, also at the time of its production, a notable contribution to American scientific writing, and has been, perhaps, the most frequently reprinted book ever written in the United States south of Mason and Dixon’s line.

In 1781, the French ministry directed their American agent to gather certain information concerning the several States then forming the American union, for the use of the home government. The secretary of the French legation, Marbois, in pursuance of this instruction, drew up a series of questions, which were sent to leading men in the different States, who were presumed to be best competent to supply the needed answers. These questions produced from several of the States replies more or less adequate, a number of which have been since printed. On the recommendation of Joseph Jones, then a member of the Continental Congress, a set of queries was sent to Jefferson, then still governor of Virginia, who wrote to M. Barbé de Marbois, the secretary of the legation:

Richmond Mar. 4th, 1781.

“Sir,—I have been honoured with your letter of Feb. 5. Mr. Jones did put into my hands a paper containing sundry inquiries into the present state of Virginia which he informed me was from yourself, some of which I meant to do myself the honour of answering. Hitherto it has been in my power to collect a few materials only, which my present occupations disable me from completing. I mean however shortly to be in a condition which will leave me quite at leisure to take them up, when it shall be one of my first undertakings to give you as full information as I shall be able to do on such of the subjects as are within the sphere of my acquaintance. On some of them however I trust Mr. Jones will engage abler hands. Those in particular which relate to the commerce of the state—a subject with which I am totally unacquainted, and which is probably the most important in your plan.”

In the leisure that ensued after his resignation of office, and a physical injury received from a fall from his horse, he undertook this work. Instead of treating the questions in the superficial way that most of the other respondents deemed sufficient, he prepared an elaborate and careful reply. In his *Autobiography* (i, 94), he states:

“I had always made it a practice whenever an opportunity occurred of obtaining any information of our country, which might be of use to me in any station public or private, to commit it to writing. These memoranda were on loose papers, bundled up without order, and difficult of recurrence when I had occasion for a particular one. I thought this a good occasion to embody
their substance, which I did in the order of Mr. Marbois’ queries, so as to answer his wish and to arrange them for my own use.”

Jefferson retained a copy of these Notes, and submitted them to several friends for correction and suggestion. In the following winter (1782–3), he “somewhat corrected and enlarged” them. He was asked for copies by his friends, and seems to have yielded in some cases, for he wrote Chastellux:

Amphill, Nov. 26, 1782.

*** “This will give me full leisure to communicate to you my answers to the queries of Monsr de Marbois.” ***

As these demands multiplied, however, they grew beyond his power to gratify, and he decided to print an edition for private distribution. When he went to attend the continental congress in the winter of 1783–4, he made inquiries preparatory to this, but failed to carry out his purpose, for reasons recorded in a letter to Charles Thomson:

Philadel, May 21, 1784.

*** “My matter in the printing way is dropped. Aitken had formerly told me that he would print it for £4 a sheet. He now asks £5 10s, which raises the price from £48 to £66; but what was a more effectual and insuperable bar was that he could not complete it under three weeks, a time I could not wait for it. Dunlap happened to be out of town, so I relinquished the plan. Perhaps I may have a few copies struck off in Paris if there be an English Printer. If I do you shall assuredly have one. I shall take the liberty of adding some of your notes—those which were mandatory merely will have their effect on the body of the work.”

Jefferson carried the MS therefore with him to France when he was sent as commissioner. Its condition at that time is described in a letter to Hogendorp, written some months after:


*** “The condition in which you first saw them [the Notes] would prove to you how hastily they had been originally written; as you may remember the numerous insertions I had made in them from time to time, when I could find a moment for turning to them from other occupations.”

Jefferson reached Paris August 6, 1784, and seems to have at once placed the MS of his Notes in the hands of a printer, for he records on Sept. 13, in his note book:

“Pd. M. La Marche in part for sheets 1176 f.” and under Oct. 15 enters in the same:
“Pd. M. La Marche balance for sheets 69 f.”

This edition of the Notes was anonymous. Two hundred copies were printed. Jefferson wrote to Carmichael, of this edition:

Paris Dec 26, 1786

*** “My Notes on Virginia having been hastily written, need abundance of corrections. Two or three of these are so material that I am reprinting a few leaves to substitute for the old. As soon as these shall be ready, I will beg your acceptance of a copy. I shall be proud to be permitted to send a copy also to the Count de Campomanes, as a tribute to his science & his virtues.”

As here indicated, the author distributed a few copies, as presents to friends, each one bearing a presentation note in Jefferson’s writing, requesting that it should be considered as a private communication. Two of these inscriptions, are here reproduced as types, in facsimile. Another was as follows:

“Th. Jefferson begs the Marquis de Lafayet’s acceptance of a copy of these Notes. The circumstances under which they were written, and the talents of the writer, will account for their errors and defects. The original was sent to Mr de Marbois in December 1781.

“The desire of a friend to possess some of the details they contained occasioned him to revise them in the subsequent winter. The vices however of their original composition were such as to forbid material amendment. He now has a few copies printed with a design of offering them to some of his friends, and to some estimable characters beyond that line. A copy is presented to the Marquis de LaFayette whose services to the American Union in general, and to that member of it particularly which is the subject of these Notes and in that precise point of time too to which they relate, entitle him to this offering.

“To these considerations the writer hopes he may be permitted to add his own personal friendship and esteem for the Marquis. Unwilling to expose these sheets to the public eye the writer begs the favor of the Marquis to put them into the hands of no person on whose care and fidelity he cannot rely to guard them against publication.”

Jefferson’s reasons for not publishing the work, and for taking such pains to guard it from being printed, are given in a letter to Chastellux:

Paris June 7. 1785.

“Dear Sir,—I have been honoured with the receipt of your letter of the 2d instant, and am to thank you, as I do sincerely for the partiality with which you receive the copy of the Notes on my country. As I can answer for the facts therein reported on my own observation and have admitted
none on the report of others which were not supported by evidence sufficient to command my own assent, I am not afraid that you should make any

Written by the Author on the Fly-Leaves of Two Presentation Copies of the Original French Edition of Jefferson’s *Notes on Virginia.*
extracts you please for the *Journal de Physique* which come within their plan of publication. The strictures on slavery and on the constitution of Virginia are not of that kind, and they are the parts which I do not wish to have made public, at least till I know whether their publication would do most harm or good. It is possible that in my own country these strictures might produce an irritation which would indispose the people towards the two great objects I have in view, that is the emancipation of their slaves & the settlement of their constitution on a firmer & more permanent basis. If I learn from thence, that they will not produce that effect, I have printed & reserved just copies enough to be able to give one to every young man at the College. It is to them I look, to the rising generation, and not to the one now in power, for these great reformatons. The other copy delivered at your hotel was for Mons de Buffon. I meant to ask the favour of you to have it sent to him, as I was ignorant how to do it. I have one also for Mons Daubenton; but being utterly unknown to him I cannot take the liberty of presenting it till I can do it through some common acquaintance.”

He also wrote to Charles Thomson:

Paris June 21, 1785.

*** “In literature nothing new: For I do not consider as having added anything to that field by my own Notes of which I have had a few copies printed. I will send you a copy by the first safe conveyance. Having troubled Mr. Otto with one for Colo Monroe, I could not charge him with one for you. Pray ask the favor of Colo Monroe in page 5, line 17, to strike out the words ‘above the mouth of the Appamattox,’ which makes nonsense of the passage, and I forgot to correct it before I had enclosed & sent off the copy to him. I am desirous of preventing the reprinting this, should any book merchant think it worth it, till I hear from my friends whether the terms in which I have spoken of slavery and of the constitution of our State will not, by producing an irritation, retard that reformation which I wish instead of promoting it.”

He further wrote to Francis Hopkinson:

Paris July 6, 1786

*** “Having slipped the opportunity of sending copies of my Notes for yourself, & Mr. Rittenhouse when Dr. Franklin’s baggage went, I am doubtful whether he can take them with him. If he can you shall receive them by him. If not, then by the first good opportunity. I am obliged to pray that they may not be permitted to get into the hands of the public till I know whether they will promote or retard certain reformatons in my own country. I have written to Mr. Madison to inform me on that head.”

As soon as this publication was known, Jefferson was besieged for copies of the book. A type of these requests is shown in a letter of his old law teacher, George Wythe, who wrote him:

Jan 10, 1786
“Before i opened the pacquet, observing it to contain books, i hoped to see the copy of one, with a cursory reading of which i had then lately been delighted. You will know the book i mean when i tell you that he who indulged me with the reading of it informed me, that the author had not yet resolved to publish it.”

In spite of these solicitations, Jefferson was chary of giving out copies till he should have the opinions of his Virginia friends concerning the parts likely to cause irritation. Madison wrote him:

Richmond Nov. 15th, 1785.

** * * * “On my return to Orange, I found the copy of your notes brought along . . . by Mr. Doradour. I have looked them over carefully myself, and consulted several judicious friends in confidence. We are all sensible that the freedom of your strictures on some particular measures and opinions will displease their respective abettors. But we equally concur in thinking that this consideration ought not to be weighed against the utility of your plan. We think both the facts and remarks which you have assembled too valuable not to be made known, at least to those for whom you destine them, and speak of them to one another in terms which I must not repeat to you. Mr. Wythe suggested that it might be better to put the number you may allot to the University into the library, rather than to distribute them among the students. In the latter case, the stock will be immediately exhausted. In the former, the discretion of the professors will make it serve the students as they successively come in. Perhaps too, an indiscriminate gift might offend some narrow-minded parents.”

On the strength of this opinion, Jefferson began a more general distribution. He replied to Madison:

Paris Feb. 8, 1786.

** * * * “I thank you for your information as to my Notes. The copies I have remaining shall be sent over to be given to some of my friends and to select subjects in the college. I have been unfortunate here with this trifle. I gave out a few copies only, & to confidential persons writing in every copy a restraint against it’s publication. Among others I gave a copy to a Mr. Williams, he died. I immediately took every precaution I could to recover this copy. But by some means or other, a book seller got hold of it. He employed a hireling translator and was about publishing it in the most injurious form possible. An Abbé Morellet a man of letters here to whom I had given a copy, got notice of this. He had translated some passages for a particular purpose; and he compounded with the book seller to translate & give him the whole, on his declining the first publication. I found it necessary to confirm this, and it will be published in French, still mutilated however in it’s freest parts. I am now at a loss what to do as to England. Everything good or bad, is thought worth publishing there and I apprehend a translation back from the French, and a publication there. I rather believe it will be most eligible to let the original come out in that country: but am not yet decided.”
To Hopkinson he wrote:

Paris, Sept 25, 1785

*** “I have sometimes thought of sending a copy of my Notes to the Philosophical Society, as a tribute due to them, but this would seem as if I considered them as worth something, which I am conscious they are not. I will not ask you for your advice on this occasion, because it is one of those on which no man is authorized to ask a sincere opinion. I shall therefore refer it to further thoughts.”

He also wrote to Wythe:

Paris, August 13, 1786.

*** “I availed myself of the first opportunity which occurred, by a gentleman going to England, of sending to Mr. Joddrel a copy of the Notes on our country, with a line informing him that it was you who had emboldened me to take that liberty. Madison, no doubt, informed you of the reason why I had sent only a single copy to Virginia. Being assured by him that they will not do the harm I had apprehended, but on the contrary may do some good, I propose to send thither the copies remaining on hand, which were fewer than I had intended. But of the numerous corrections they need, there are one or two so essential that I must have them made, by printing a few new leaves, & substituting them for the old. This will be done while they are engraving a map which I have constructed of the country from Albemarle sound to Lake Erie, & which will be inserted in the book. A bad French translation which is getting out here, will probably oblige me to publish the original more freely which it neither deserved nor was ever intended. Your wishes which are law to me, will justify my destining a copy for you, otherwise I should as soon have thought of sending you a hornbook; for there is no truth there that is not familiar to you, and its errors I should hardly have proposed to treat you with.”

The threatened translation touched upon in the above letters to Madison and Wythe was treated more at large in a letter to C. W. F. Dumas:

Paris, February 2, 1786

*** “I thank you for what you say of the notes on Virginia. It is much more than they deserve. Though the various matters they touch on would have been beyond the information of any one person whatever to have treated fully and infinitely beyond mine, yet had I at the time of writing them, had anything more in view than the satisfying a single individual, they should have been more attended to both in form and matter. Poor as they are, they have been thought worthy of a surreptitious translation here, with the appearance of which very soon I have been threatened. This has induced me to yield to a friendly proposition from the Abbé Morellet, to translate and publish them himself, submitting the sheets previously to my inspection. As a translation by so able a hand will lessen the faults of the original, instead of their being multiplied by a hireling
translator, I shall add to it a map and such other advantages as may prevent the mortification of
my seeing it appear in the injurious form threatened. I shall with great pleasure send a copy of
the original to you by the first opportunity, praying your acceptance of it.”

To Dr. Edward Bancroft he also wrote:

Paris Feb 26, 1786.

*** “By the death of Mr. Williams a copy of my Notes on Virginia got into the hands of a
bookseller, who was about publishing a very abominable translation of them when the Abbé
Morellet heard of it, & diverted him from it by undertaking to translate it for him. They will thus
appear in French in spite of my precautions. The Abbé engaged me to make a map, which I wish
to have engraved in London. It is on a single sheet 23 inches square, and very closely written. It
comprehends from Albemarle sound to L. Erie, and from Philadelphia to the mouth of the great
Kanhaway, containing Virginia & Pennsylvania, a great part of Maryland & a part of North
Carolina. It is taken from Mitchell, Hutchins, & Fry, & Jefferson. I wish the favor of you to
make two propositions for me & to inform me of the result. 1. To know from one of the best
engravers how much he will ask for the plate & engraving, and in how short a time after he
receives the original can he furnish the plate done in the best manner, for the time is material as
the work is in the press. 2. To know of Faden or any other map merchant for how much he will
undertake to furnish me 1800 copies, on my sending the map to him, & in what time can he
furnish them. On this alternative I am to have nothing to do with the engraver or any person but
the undertaker. I am of opinion he may furnish them to me for nothing; and fully indemnify
himself by the sale of the maps. Tho’ it is on a scale of only an inch to 20 miles it is as particular
as the four sheet maps from which it is taken, and I answer for the exactness of the reduction. I
have supplied some new places. Tho’ the first object which induced me to undertake it was to
make a map for my book, I soon extended my view to the making as good a map of those
countries as my materials would admit; and I have no doubt but that in the states of
Pennsylvania, Maryland & Virginia 600 copies can be sold for a dollar apiece. I shall finish it in
about a fortnight, except the divisions in the counties of Virginia, which I cannot do at all till I
can get Henry’s map of Virginia. This I must trouble you to procure for me & send immediately
by the Diligence, and also give me information on the premises as soon as possible. You will
perceive that time will press. I hope the circumstances of this affair will plead my pardon for the
trouble I am giving you. The expense of procuring & sending the map shall be replaced, and an
infinitude of thanks attend you Sir your most obedt humble servt.

“P. S. I do not propose that my name shall appear on the map, because it will belong to it’s
original authors, & because I do not wish to place myself at the bar of the public.”

Morellet’s preface to this edition states:

“AVERTISSEMENT
“L’Ouvrage qu’on donne ici au Public a été imprimé en 1782, sous le titre de Notes on Virginia, & n’est en effet qu’un recueil de Notes, ou Observations détachées, servant de réponse aux Questions d’un ami de l’Auteur, Européen qui cherchait à connaître cette partie des États-Unis; mais on ne craint pas d’annoncer que sous un titre si modeste; le Lecteur trouvera des connoissances approfondies & des idées étendues.

“L’Ouvrage n’ayant d’autre plan que celui qu’a donné l’ordre des Questions, qui n’est pas toujours le plus naturel qu’on pût suivre, le Traducteur a pris la liberté, avec l’agrément de l’Auteur, de transposer quelques morceaux. Voici les principales de ces transpositions, qui sont en petit nombre.

“1°. On a fait de la septième Section, de l’original, qui traite du Climat, la deuxième de la traduction.

“2°. La neuvième & la dixième Section de l’original, qui traitent des forces militaires de terre & de mer, ont été renvoyées à la fin de l’Ouvrage, à la suite du paragraphe où l’on traite du Revenu public & de la Dépense nationale.


“Les autres changemens sont trop peu considérables pour qu’il soit nécessaire d’en faire ici mention. On doit dire seulement qu’il n’y a rien d’omis de l’original.

“L’Auteur ayant fait une addition à quelques idées qu’il expose sur la Théorie de la terre, dans les pages 72, 73, &c. & cette addition étant parvenue trop tard au Traducteur, on l’a placée à la fin de l’Ouvrage, & le Lecteur est prié d’y recourir.

“Les observations de M. Charles Thomson, Secrétaire de Congrès, qui se trouvent à la fin de l’original anglais, sous le titre d’Appendix, depuis la page 367, jusqu’à étant toutes relatives à celles de M. J. dont elles sont communément des développemens ou des preuves, nous avons cru devoir les placer dans le corps même de l’Ouvrage, aux endroits auxquels elles appartiennent. Nous les avons distinguées, en les enfermant entre les deux marques.

“We avons aussi fait entrer dans le texte les notes de l’Auteur lui-même, parce qu’elles nous ont paru y tenir assez pour pouvoir former avec l’Ouvrage un discours suivi; ce que devroient toujours être des notes, si en suivant cette regale, on n’étoit pas dispensé d’en faire.

“La traduction françoise se trouve enrichie d’une carte, rédigée par l’Auteur lui-même avec l’exactitude qu’il fait mettre à tout ce qu’il fait. On ose dire que cette carte, la plus correcte & la plus riche de toutes celles qu’on a eues de la Virginie jusqu’à présent, donne seule un grand prix à l’ouvrage que nous présentons au Public.
“On n’a point réduit dans chaque endroit les mesures angloises aux nôtres. Ou dira seulement que le pied anglois (foot) est d’environ 11 pouces 4 lignes & demie du pied français. La verge (yard) est de trois pieds anglois, & répond par consequent a environ 34 pouces 1 ligne & demie. L’estimation n’a pas besoin ici d’une plus grande précision.

“Dans la traduction des noms propres des lieux, des villes, des rivières, &c. dont la plupart sont de la langue des naturels du pays, on a suivi la maniere dont les Anglois les écrivent, sans égard aux altérations que les Geographes & les Auteurs françois leur font souvent subir. On a cru que les possesseurs de ces contrées avoient seuls le droit d’en fixer la nomenclature.

“Quant aux noms propres anglois, on s’est bien gardé de les supprimer en les traduisant, parce qu’ils deviennent souvent méconnoissables dans la traduction on les a conservés, en mettant à côté & en parenthèse la traduction française. Ainsi on a dit, la chaîne des montagnes appelées Laurel-Ridge (montagnes du Laurier), & non pas, la chaîne de montagnes, appelés montagnes du Laurier.”

This publication in French, made the issue of an English edition almost inevitable. Madison told Jefferson:

Orange, May 12th, 1786.

* * * “Your notes having got into print in France, will inevitably be translated back and published in that form, not only in England but in America, unless you give out the original. I think, therefore, that you owe it not only to yourself, but to the place you occupy, and the subjects you have handled, to take this precaution. To say nothing of the injury which will certainly result to the diction from a translation first into French and then back into English, the ideas themselves may possibly be so perverted as to lose their propriety.”

To protect himself against this possibility, Jefferson entered into negotiations for an edition in English. He wrote to John Stockdale, the great English publisher:

Paris, Feb. 1, 1787.

“Sir,—You have two or three times proposed to me the printing my Notes on Virginia. I never did intend to have made them public, because they are little interesting to the rest of the world, but as a translation of them is coming out, I have concluded to let the original appear also. I have therefore corrected a copy & made some additions. I have moreover had a map engraved which is worth more than the book. If you chuse to print the work I will send you the corrected copy, and when it shall be nearly printed I will send the plate of the map. I would not chuse that it should be put under a patent, nor that there should be a tittle altered, added, nor omitted. It would be necessary to have a small half sheet map engraved of the country of Virginia as when first discovered. This map is only to be found in Smith’s history of Virginia, a thin folio, now very rare. I was not able to find that work here, but surely it can be found in London.
An exact copy of the map is all that would be wanting. I leave this place about the 11th or 12th. Be so good as to let me know whether you chuse to print the work under the conditions before named. If I receive your answer in the affirmative before I set out, I will send you immediately the copy. It is an octavo of 390 pages. The American Atlas is come safe to hand.

P. S. it is not necessary to observe that as I have been to the expense of engraving a large map, I should expect to be paid for those you should have occasion for, a shilling a piece.”

Paris. Feb. 27. 1787.

“Sir,—By the Diligence of tomorrow I will send you a corrected copy of my Notes which I will pray you to print precisely as they are, without additions, alterations, preface, or anything else but what is there. They will require a very accurate corrector of the press, because they are filled with tables, which will become absolutely useless if they are not printed with a perfect accuracy. I beg you therefore to have the most particular attention paid to the correcting of the press. With respect to the plate of the map, it is impossible to send it at the same time. It was engraved in London, and on examination I found a prodigious number of orthographical errors. Being determined that it shall not go out with a single error, an engraver is now closely employed in correcting them. He promises to have it finished the next week, say by the 10th of March; but I suppose you must expect he will not be punctual to a day. the map will be worth more than the book, because it is very particular, made on the best materials which exist, and is of a very convenient size, bringing the States of Virginia, Maryland, Delaware & Pennsylvania into a single sheet. It will make the book sell. I think it would be worth your while to print 400 copies of the book for America, sending 200 to Richmond in Virginia, & 200 to Philadelphia, if you have no correspondents there, you might send those for Richmond to Mr. James Buchanan merchant there, & those for Philadelphia to Aitken bookseller there. These are men on whose punctuality you may depend. But they should be restrained from selling but for ready money: so that you may always find in their hands either the money or the books. I set out on my journey tomorrow: but Mr. Short, my Secretary, remains here, and will hasten & forward the plate to you by the Diligence. Be so good as to send by the next Diligence a copy of Mr. Adams’ book on the American Constitutions printed by Dilly, in boards, it being for a bookseller here.”

In the preparation of this edition, Jefferson wrote to the Abbé Morellet:

Paris July 2, 1787.

“I am sorry, my dear Sir, that your interest should be affected by the ill behavior of Barrois but when you consider the facts you will be sensible that I could not have indulged his indolence further without increasing the injury to a more punctual workman. Stockdale of London had asked leave to print my Notes. I agreed to it, & promised he should have the plate of the map as soon as it should be corrected, and the copies struck off for you & myself. He thereupon printed his edition completely in three weeks. The printer, who was to strike off 250 maps for me kept the plate but 5 days. It was then delivered to Barrois with notice that it could not be left longer
with him than should suffice to strike off his number. Repeated applications for it by Mr. Short & my servant were only answered by repeated promises, and times of delivery fixed, no one of which was performed. When I returned he had been possessed of the plate upwards of two months. I was astonished and confounded to be told it had not been sent to Stockdale & that his edition had been lying dead on his hands three months. I sent to Barrois the very day of my return to let him know that justice to Stockdale did not permit me to defer sending him the plate any longer, yet I would wait 5 days, at the end of which he must deliver me the plate whether his maps were done or not. I received no answer, but waited 10 days. I then sent for the plate. The answer was he was not at home. I sent again the next day. Answer he was not at home. I sent the third day. Not at home. I then ordered the messenger to go back & wait till he should come home. This produced an answer of two lines *qu’îl alloit soigner son ouvrier!* I wrote him word in return to deliver the plate instantly. This I think was on a Saturday or Sunday. He told the messenger he would let me have it the Thursday following. I took patience, & sent on the Friday, but telling the messenger if he refused to deliver it, to inform him I would be plagued no more with sending messages, but would apply to the police. He then delivered it & I sent it off immediately to London. He had kept it three months, of which three weeks was after my return. I think Sir you will be satisfied that justice to Stockdale, justice to myself who had passed my word for sending on the plate, and sensibly to the shuffling conduct of Barrois, permitted me to act no otherwise. But no matter. Let his ill behavior make no odds between you & me. It will affect your interest, & that suffices to determine me to order back the plate as soon as Stockdale has done with it. He will not require more days than Barrois months, so that it will be here before you can want it. But it must never go into Barrois hands again nor of any person depending on him or under his orders. The workman who struck off the 250. for me seems to have been diligent enough. Either he or any other workman you please of that description, shall have it to strike what number you wish. I forgot to observe in it’s proper place, that when I was in the midst of my difficulties I did myself the honor of calling on you, as well to have that of asking after your health on my return, as of asking your assistance to obtain the plate. Unluckily you were gone to Versailles so I was obliged to proceed as well as I could. It is no excuse for Barrois to say he could not get his Imprimeur to proceed. He should have applied to another. But as to you it shall be set to rights in the manner I have before stated. Accept my regret that you were in the hands of so undeserving a workman, & one who placed me under the necessity of interrupting a work which interested you. Be assured at the same time of the sincerity of those sentiments of esteem & respect with which I have the honor to be Dear Sir your most obedient & most humble servant.”

Another letter to Stockdale, acknowledged the receipt of copies of this edition:


“Sir, * * * I thank you for the dozen copies of the Notes on Virginia. The remaining 34 shall be sold so as to pay the 3d sterl. a vol. their transportation costs, the commission for selling & your 5/4 upon the whole they must be sold at about 7£ 15/—Unless you are very sure of your information of the printing the Notes on Virginia in America, I doubt it. I never sent but six
copies to America, and they were in such hands as I am sure would not permit them to be published. I have letters from Philadelphia as late as the 6th of June, & certainly no such publication was then suspected by my friends on the contrary Mr. Hopkinson, one of those to whom I had given a copy, & who is concerned in compiling the Columbian magazine, tells me he hopes I will not object to his publishing a few extracts from it particularly the passages in which M. de Buffon’s work is controverted. So that unless you are very certain on that point, I shall disbelieve it.”

The preface to this English edition was as follows:

“ADVERTISEMENT

“The following Notes were written in Virginia in the year 1781, and somewhat corrected and enlarged in the winter of 1782, in answer to Queries proposed to the author, by a Foreigner of Distinction, then residing among us. The subjects are all treated imperfectly; some scarcely touched on. To apologize for this by developing the circumstances of the time and place of their composition, would be to open wounds which have already bled enough. To these circumstances some of their imperfections may with truth be ascribed; the great mass to the want of information and want of talents in the writer. He had a few copies printed, which he gave among his friends: and a translation of them has been lately published in France, but with such alterations as the laws of the press in that country rendered necessary. They are now offered to the public in their original form and language.

“Feb. 27, 1787.”

From the publication of this revision, no further changes were made in the published text during Jefferson’s lifetime. He wrote to J. Lithgow:

Washington, January 4, 1805.

*** “Mr. Duane informed me that he meant to publish a new edition of the Notes on Virginia, and I had in contemplation some particular alterations which would require little time to make. My occupations by no means permit me at this time to revise the text, and make those changes in it which I should now do.” ***

He later wrote to John Melish:

Monticello, December 10, 1814.

*** “You propose to me the preparation of a new edition of the Notes on Virginia. I formerly entertained the idea, and from time to time noted some new matter, which I thought I would arrange at leisure for a posthumous edition. But I now begin to see that it is impracticable for me. Nearly forty years of additional experience in the affairs of mankind would lead me into
dilatations ending I know not where. That experience indeed has not altered a single principle. But it has furnished matter of abundant development. Every moment too, which I have to spare from my daily exercise and affairs is engrossed by a correspondence, the results of the extensive relations which my course of life has necessarily occasioned. And now the act of writing itself is becoming slow, laborious and irksome. I consider, therefore, the idea of preparing a new copy of that work as no more to be entertained. The work itself indeed is nothing more than the measure of a shadow, never stationary, but lengthening as the sun advances, and to be taken anew from hour to hour. It must remain, therefore, for some other hand to sketch its appearance at another epoch, to furnish another element for calculating the course and motion of this member of our federal system.”

The revised copy of the Notes here mentioned passed into the hands of his literary executor, from whom it passed to J. W. Randolph & Co., who printed an edition from it in 1853. To this they added the following note:

“PREFACE OF THE PUBLISHER

“Thomas Jefferson left at his death a printed copy of his Notes on Virginia, containing many manuscript notes, several plates and a map, intended apparently for a new edition of the work. As an edition had then been recently published it was deemed best to delay any further publication until the book should become scarce. It is now nearly out of print, and a general desire is expressed for another edition. With a view of gratifying this wish, Mr. Jefferson’s executor, Thomas Jefferson Randolph, has transferred to the publisher the materials prepared by the author for the new edition.

“In making this preparation the author used a copy of the first edition, and thus inadvertently repeated an error in the narrative preceding Logan’s speech which had been corrected in a later edition. An historical statement making the correction, deduced by the author from certain documents, and the documents themselves, will be found in Appendix No. IV. They are taken from a re-print of the work in 1825.

“The manuscript notes of the present edition are numerous and interesting. Many are in foreign languages, and disclose the extensive erudition of the author. Professor Schele De Vere, the accomplished and learned incumbent of the chair of Modern Languages of the University of Virginia, has been kind enough to translate the French, Spanish and Italian notes. These translations will be found in Appendix No. IV.

“The circumstances under which the Notes on Virginia were written, are stated by the author in this preface. It may be well to add, that the foreigner of distinction to whom they were addressed was Mons. Barbe De Marbois, the Secretary of the French Legation in the United States, and that they were written while the author was confined to his room by an injury received from the falling of his horse.
“The beauty of style, the accuracy of information, and the scientific research displayed in the
Notes have made them a permanent part of our national literature. The publisher therefore
conceives that in publishing a new edition of this admirable work, he is renewing a valuable
contribution to that literature, and rendering a just tribute to the illustrious author.

September 13, 1853.”

The original edition of the Notes was printed with the title here reproduced in facsimile. It was a
small octavo, of 391 pages, plus the title and folding leaf. The last twenty-five pages were an
“Appendix” of notes contributed by Charles Thomson. After Jefferson had distributed some
copies he printed a “Draught of a Fundamental Constitution for the Commonwealth of Virginia”
(pp. 14), and “Notes on the Establishment of a Money Mint and a Coinage for the United States”
(pp. 14) in uniform style, and added them as appendices to the copies he still had. Still later he
printed, on its passage by the Virginia legislature, “An Act for Establishing Religious Freed-
om” (pp. 4), which he made a third appendix to the copies still remaining in his hands. In addition to
these appendices, he cancelled in 1786 pages 52–4 of the original edition, in which he had
propounded the suggestion, to explain the occurrence of sea shells in high mountains on other
grounds than that of an universal deluge (in which he had no faith), that “besides the usual
process for generating shells by the elaboration of earth and water in animal vessels, may not
nature have provided an equivalent operation, by passing the same materials through the pores of
calcareous earths and stones?” In lieu of these, he had printed new pages, omitting this theory,
and substituted these leaves in the copies still remaining in his hands; but they must have been
few, for copies with these new sheets are very uncommon.

The French translation of Morellet was somewhat revised, and had an “Avertissement” of the
translator. It omitted Thomson’s notes, and the three appendices already mentioned. It had,
however, a map drawn by Jefferson, which the latter considered far more valuable than the Notes
themselves. The title of this edition was:

Observations / sur / La Virginie, / Par M. J***. / Traduites de L’Anglois. / A Paris, / Chez
Barrois, l’aîné, Librarie, rue du / Hurepoix, près le pont Saint-Michel. / 1786. / 8vo pp. (4), viij,
390, (2), (4), map and folding leaf.

The first published edition in English was, as already recorded, by Stockdale, in London. This
had an introductory note and included the three appendices that Jefferson had printed since the
appearance of the original edition, as also the new matter which had replaced the cancelled
leaves. The typographical changes were very numerous, chiefly in the spelling of geographical
names, of the substitution of spelled for numeral figures, and in the correction of some few minor
errors. It also contained the map that had appeared in the French edition. It was the first edition
to give the name of the author, the title being:

Notes / on / the / State of Virginia. / written by / Thomas Jefferson. / illustrated with / A Map,
including the States of Virginia, Maryland, Delaware and Pennsylvania. / London: / Printed

This edition was at once reprinted verbatim, in America (a pirated edition apparently), but without the map. The title was.


A German translation was issued in 1789 with the title of:

A second American reprint of the Stockdale edition was made with Jefferson’s consent in 1794. The title was:

In 1797–8 Jefferson prepared an additional appendix, which he printed separately, two years later, with the title of:


This appendix was included in the next edition of the Notes, which bore the title:

All editions subsequent to this, except the last, are reprints of the text of 1787, together with this appendix relating to Logan. More or less full bibliographical titles are given in the Historical Magazine, 1, 52; Sabin’s Dictionary of Books relating to America; and H. B. Tompkins’ Bibliotheca Jeffersoniana. Only a check list of imprints therefore is here given.


Newark; Pennington & Gould. 1801.
It is proper to state that the text of the Notes, as printed in Washington’s edition of Jefferson’s Writings, is that of 1787, but the editor chose to modify one paragraph to suit his personal views.

Although Jefferson never revised the Notes further than to amend the text for the edition printed in 1787, and the “Logan appendix,” he left a copy of the 1787 with MS revisions. From this an edition was printed in 1853 which besides embodying Jefferson’s corrections, included a preface by the publisher, an “Extract from a Letter of Judge Gibson,” and translations of the notes in foreign tongues. It also contains four plates and a woodcut not in any other edition. It is therefore the best edition, and one of the most difficult to procure. Its title is:


The Notes stirred up considerable controversy. Jefferson’s theory of shell formation was somewhat ridiculed in the French press of the day, and later the same theory was brought forward by certain of his political opponents in America in an endeavor to make him absurd. His
statements concerning Logan were sharply criticised for personal and political reasons. His argument against the universal deluge and his plea for religious toleration were used extensively as a political argument against him. These latter produced several pamphlets pro and con, concerning his religious opinions, of which the following by Clement Clarke Moore, is the only one entirely based on the Notes:

Observations / upon certain passages in / Mr. Jefferson’s Notes on Virginia, / which appear to have a tendency to / subvert Religion, / and Establish / A False Philosophy. / New-York. / 1804. / 8vo. pp. 32.

In the New York State Library at Albany are the proof sheets of the first edition of the Notes with Jefferson’s corrections. These are fully described in the Historical Magazine, (xiii, 96), by E. B. O’Callaghan. Only a single one is of a character to deserve notice in this reprint. In 1874, Jefferson’s copy of the edition of 1787 with his autograph corrections was sold at auction in New York for $160, passing to the library of E. G. Asay of Chicago.

For more concerning the Notes see the Historical Magazine, xiii, 96; Sparks’s Writings of Franklin, x, 317; Jefferson’s Autobiography, 1, 94; and the Monthly Review, lxxviii, 377, 450.

The present text conforms to that of the original edition printed in 1784, the original page numbers being given in brackets. This text has been compared, however, with the editions of 1787 and 1853, and all variation, other than typographical or verbal are indicated in footnotes. The first appendix, consisting of Charles Thomson’s notes, has been broken up, and each note placed with the part of the text to which it relates, as more convenient for reference. The “Notes on a Money Unit,” the “Fundamental Constitution,” and the “Bill for Religious Freedom,” are omitted, as not strictly forming part of the Notes, and more appropriately printed elsewhere. The appendix relating to Logan is compressed, by the exclusion of the confirmatory documents, and is placed as a footnote to the original account. The map is a reproduction of Jefferson’s original map, first published in the edition of 1786. The plate illustrating the “Logan matter” is reproduced from the “Appendix” of 1800. The “Eye draught of Madison’s cave” is reproduced from the first edition. The other four plates are taken from the edition of 1853. The present text therefore embodies practically all that is germane and valuable in every previous edition.
NOTES on the State of VIRGINIA;
written in the year 1781, somewhat corrected and enlarged in the winter of 1782,
for the use of a Foreigner of distinction, in answer to certain queries proposed by him respecting

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MDCCLXXXII.
QUERY I
An exact description of the limits and boundaries of the state of Virginia?

Virginia is bounded on the East by the Atlantic: on the North by a line of latitude, crossing the Eastern shore through Watkin’s Point, being about 37° 57’ North latitude; from thence by a straight line to Cinquac, near the mouth of Patowmac; thence by the Patowmac, which is common to Virginia and Maryland, to the first fountain of its northern branch; thence by a meridian line, passing through that fountain till it intersects a line running East and West, in latitude 39° 43’ 42.4″ which divides Maryland from Pennsylvania, and which was marked by Messrs. Mason and Dixon; thence by that line, and a continuation of it westwardly to the completion of five degrees of longitude from the eastern boundary of Pennsylvania, in the same latitude, and thence by a meridian line to the Ohio: On the west by the Ohio and Mississipi, to latitude 36° 30’ North: and on the South by the line of latitude last-mentioned. By admeasurements through nearly the whole of this last line, and supplying the unmeasured parts from good data, the Atlantic and Mississipi are found in this latitude to be 758 miles distant, equal to 13° 38′ of longitude, reckoning 55 miles and 3144 feet to the degree. This being our comprehension of longitude, that of our latitude, taken between this and Mason and Dixon’s line, is 3° 13’ 42.4″ equal to 223.3 miles, supposing a degree of a great circle to be 69 m 864 f., as computed by Cassini. These boundaries include an area somewhat triangular of 121525 square miles, whereof 79650 lie westward of the Alleghany mountains, and 57034 westward of the meridian of the mouth of the great Kanhaway. This state is therefore one-third larger than the islands of Great Britain and Ireland, which are reckoned at 88357 square miles.

These limits result from, 1. The antient charters from the crown of England. 2. The grant of Maryland to the Lord Baltimore, and the subsequent determinations of the British court as to the extent of that [3] grant. 3. The grant of Pennsylvania to William Penn, and a compact between the general assemblies of the commonwealths of Virginia and Pennsylvania as to the extent of that grant. 4. The grant of Carolina, and actual location of its northern boundary, by consent of both parties. 5. The treaty of Paris of 1763. 6. The confirmation of the charters of the neighboring states by the convention of Virginia at the time of constituting their commonwealth. 7. The cession made by Virginia to Congress of all the lands to which they had title on the North side of the Ohio.
QUERY II
A notice of its rivers, rivulets, and how far they are navigable?

An inspection of a map of Virginia, will give a better idea of the geography of its rivers, than any description in writing. Their navigation may be imperfectly noted.

*Roanoke*, so far as it lies within this state, is nowhere navigable, but for canoes, or light batteaux; and, even for these, in such detached parcels as to have prevented the inhabitants from availing themselves of it at all.

*James River*, and its waters, afford navigation as follows:

The whole of *Elizabeth River*, the lowest of those which run into James River, is a harbour, and would contain upwards of 300 ships. The channel is from 150 to 200 fathom wide, and at common flood tide affords 18 feet water to Norfolk. The *Stafford*, a sixty gun ship, went there, lightening herself to cross the bar at Sowell’s point. The *Fier Rodrigue*, pierced for 64 guns, and carrying 50, went there without lightening. Craney island, at the mouth of this river, commands its channel tolerably well.

*Nansemond River* is navigable to Sleepy hole, for vessels of 250 tons; to Suffolk for those of 100 tons; and to Milner’s, for those of 25.

*Pagan Creek* affords 8 or 10 feet water to Smithfield, which admits vessels of 20 tons.

*Chickahominy* has at its mouth a bar, on which is only 12 feet water at common flood tide. Vessels passing that, may go 8 miles up the river; those of 10 feet draught may go 4 miles further, and those of 6 tons burden 20 miles further.

*Appamattox* may be navigated as far as Broadways, by any vessel which has crossed Harrison’s bar in James River; it keeps 8 or 10 feet water a mile or two higher up to Fisher’s bar, and 4 feet on that and upwards to Petersburgh, where all navigation ceases.

*James River* itself affords a harbor for vessels of any size in Hampton Road, but not in safety through the whole winter; and there is navigable water for them as far as Mulberry Island. A 40 gun ship goes to James town, and, lightening herself, may pass [above the mouth of Appamattox, to Harrison’s bar; on which there is only 15 feet water. Vessels of 250 tons may go to Warwick; those of 125 go to Rocket’s, a mile below Richmond; from thence is about 7 feet water to Richmond; and about the centre of the town, four feet and a half, where the navigation is interrupted by falls, which in a course of six miles, descend about 80 feet perpendicular; above these it is resumed in canoes and batteaux, and is prosecuted safely and advantageously to within 10 miles of the Blue ridge and even through the Blue ridge a ton weight has been brought; and the expense would not be great, when compared with its object, to open a tolerable navigation up Jackson’s river and Carpenter’s Creek, to within 25 miles of Howard’s creek of Green briar, both
of which have then water enough to float vessels into the Great Kanhaway. In some future state
of population, I think it possible, that its navigation may also be made to interlock with that of
the Patowmac, and through that to communicate by a short portage with the Ohio. It is to be
noted, that this river is called in the maps James River, only to its confluence with the Rivanna;
thereto the Blue ridge it is called the Fluvanna; and thence to its source, Jackson’s river. But in
common speech, it is called James river to its source.

The Rivanna, a branch of James River, is navigable for canoes and batteaux to its intersection
with the South West mountains, which is about 22 miles; and may easily be opened to navigation
through these mountains to its fork above Charlottesville.

York River, at York town, affords the best harbor in the state for vessels of the largest size. The
river there narrows to the width of a mile, and is contained within very high banks, close under
which vessels may ride. It holds 4 fathom water at high tide for 25 miles above York to the
mouth of Poropotank, where the river is a mile and a half wide, and the channel only 75 fathom,
and passing under a high bank. At the confluence of Pamunkey and Mattapony, it is reduced to 3
fathom depth, which continues up Pamunkey to Cumberland, where the width is 100 yards, and
up Mattapony to within two miles of Frazer’s ferry, where it becomes 2½ fathom deep, and holds
that about five miles. Pamunkey is then capable of navigation for loaded flats to Brockman’s
bridge, fifty miles above Hanover town, and Mattapony to Downer’s bridge, 70 miles above its
mouth.

Piankatank, the little rivers making out of Mobjack Bay and those of the Eastern shore, receive
only very small vessels, and these can but enter them.

Rappahanock affords 4 fathom water to Hobb’s hole, and 2 fathom from thence to
Fredericksburg.

Patowmac is 7½ miles wide at the mouth; 4½ at Nomony bay; 3 at Acquia; 1½ at Hallooing
point; 1¼ at Alexandria. Its soundings are, 7 fathom at the mouth; 5 at St. George’s island; 4½ at
Lower Matchodic; 3 at Swan’s point, and thence up to Alexandria; thence 10 feet water to the
falls, which are 13 miles above Alexandria. These falls are 15 miles in length, and of very great
descent, and the navigation above them for batteaux and canoes, is so much interrupted as to be
little used. It is, however, used in a small degree up the Cohongoronta branch as far as Fort
Cumberland, which was at the mouth of Wills’s creek: and is capable, at no great expence, of
being rendered very practicable. The Shenandoah branch interlocks with James river about the
Blue ridge, and may perhaps in future be opened.

The Missisipi will be one of the principal channels of future commerce for the country westward
of the Alleghaney. From the mouth of this river to where it receives the Ohio, is 1000 miles by
water, but only 500 by land, passing through the Chickasaw country. From the mouth of the
Ohio to that of the Missouri, is 230 miles by water, and 140 by land. From thence to the mouth
of the Illinois river, is about 25 miles. The Missisipi, below the mouth of the Missouri, is always
muddy, and abounding with sand bars, which frequently change their places. However, it carries 15 feet water to the mouth of the Ohio, to which place it is from one and a half to two miles wide, and thence to Kaskaskia from one mile to a mile and a quarter wide. Its current is so rapid, that it never can be stemmed by the force of the wind alone, acting on sails. Any vessel, however, navigated with oars, may come up at any time, and receive much aid from the wind. A batteau passes from the mouth of Ohio to the mouth of Mississippi in three weeks, and is from two to three months getting up again. During its floods, which are periodical as those of the Nile, the largest vessels may pass down it, if their steerage can be ensured. These floods begin in April, and the river returns into its banks early in August. The inundation extends further on the western than eastern side, covering the lands in some places for 50 miles from it’s banks. Above the mouth of the Missouri, it becomes much such a river as the Ohio, like it clear, and gentle in its current, not quite so wide, the period of its floods nearly the same, but not rising to so great a height. The streets of the village at Cohoes are not more than 10 feet above the ordinary level of the water, and yet were never overflowed. Its bed deepens every year. Cohoes, in the memory of many people now living, was insulated by every flood of the river. What was the eastern channel has now become a lake, 9 miles in length and one in width, into which the river at this day never flows. This river yields turtle of a peculiar kind, perch, trout, gar, pike, mullets, herring, carp, spatula fish of 50 pounds weight, cat fish of an hundred pounds weight, buffalo fish, and sturgeon. Alligators or crocodiles have been seen as high up as the Acansas. It also abounds in herons, cranes, ducks, brant, geese, and swans. Its passage is commanded by a fort established by this state, five miles below the mouth of the Ohio, and ten miles above the Carolina boundary.

The Missouri, since the treaty of Paris, the Illinois and Northern branches of the Ohio since the cession to Congress, are no longer within our limits. Yet having been so heretofore, and still opening to us channels of extensive communication with the western and north-western country, they shall be noted in their order.

The Missouri is, in fact, the principal river, contributing more to the common stream than does the Mississippi, even after its junction with the Illinois. It is remarkably cold, muddy and rapid. Its overflowings are considerable. They happen during the months of June and July. Their commencement being so much later than those of the Mississippi, would induce a belief that the sources of the Missouri are northward of those of the Mississippi; unless we suppose that the cold increases again with the ascent of the land from the Mississippi westwardly. That this ascent is great, is proved by the rapidity of the river. Six miles above the mouth it is brought within the compass of a quarter of a mile’s width: yet the Spanish Merchants at Pancore, or St. Louis, say they go two thousand miles up it. It heads far westward of the Rio Norte, or North River. There is, in the villages of Kaskaskia, Cohoes, and St. Vincennes, no inconsiderable quantity of plate, said to have been plundered during the last war by the Indians from the churches and private houses of Santa Fé, on the North River, and brought to these villages for sale. From the mouth of the Ohio to Santa Fé are forty days journey or about 1000 miles. What is the shortest distance between the navigable waters of the Missouri, and those of the North River, or how far this is navigable above Santa Fé, I could never learn. From Santa Fé to its mouth in the Gulph of Mexico is about 1200 miles. The road from New Orleans to Mexico crosses this river at the post
of Rio Norte, 800 miles below Santa Fé: and from this post to New Orleans is about 1200 miles; thus making 2000 miles between Santa Fé and New Orleans, passing down the North river, Red river, and Missisipi; whereas it is 2230 through the Missouri and Missisipi. From the same post of Rio Norte, passing near the mines of La Sierra and Laiguana, which are between the North river, and the river Salina to Sartilla, is 375 miles, and from thence, passing the mines of Charcas, Zaccatecas, and Potosi, to the city of Mexico, is three hundred and seventy-five miles; in all 1550 from Santa Fé to the city of Mexico. From New Orleans to the city of Mexico is about 1950 miles: the roads after setting out from the Red river, near Natchitoches, keeping generally parallel with the coast, and above two hundred miles from it till it enters the city of Mexico.

The Illinois, is a fine river, clear, gentle, and without rapids; insomuch that it is navigable for batteaux to its source. From thence is a portage of two miles only to the Chicago, which affords a batteau navigation of sixteen miles to its entrance into lake Michigan. The Illinois, about 10 miles about its mouth, is 300 Yards wide.

The Kaskaskia is 100 yards wide at its entrance into the Missisipi, and preserves that breadth to the Buffalo plains 70 miles above. So far also it is navigable for loaded batteaux, and perhaps much further. It is not rapid.

The Ohio is the most beautiful river on earth. Its current gentle, waters clear, and bosom smooth and unbroken by rocks and rapids, a single instance only excepted.

It is ¼ of a mile wide at Fort Pitt.

500 yards at the mouth of the Great Kanhaway:

1 mile and 25 poles at Louisville:

¼ of a mile on the rapids, three or four miles below Louisville:

½ mile where the low country begins, which is 20 miles above Green river:

1¼ at the receipt of the Tanessee:

And a mile wide at the mouth.

Its length, as measured according to its meanders by Captain Hutchings is as follows:

From Fort Pitt

miles

To Log’s town 18½
miles
Big Beaver creek 10¼
Little Beaver cr 13½
Yellow creek 11¼
Two creeks 21¼
Long reach 53¼
End Long reach 16½
Muskingum 25½
Little Kanhaway 12¼
Hockhocking 16
Great Kanhaway 82½
Guiandot 43 2/4
Sandy Creek 14½
Sioto 48¼
Little Miami 126¼
Licking creek 8
Great Miami 26¾
Big Bones 32½
Kentuckey 44¼
Rapids 77¼
Low country 155 2/4
Buffalo river 64½
Wabash 97¼
Big cave 42¾
Shawanee river 52½
Cherokee river 13
Massac 11
Mississippi 46
1188

In common winter and spring tides it affords 15 feet water to Louisville, 10 feet to Le Tarte’s rapids, 40 miles above the mouth of the great Kanhaway, and a sufficiency at all times for light batteaux and canoes to Fort Pitt. The rapids are in latitude 38° 8′. The inundations of this river begin about the last of March, and subside in July. During these a first-rate man-of-war may be carried from Louisville to New Orleans, if the sudden turns of the river and the strength of its current will admit a safe steerage. The rapids at Louisville descend about 30 feet in a length of a mile and a half. The bed of the river there is a solid rock, and is divided by an island into two
branches, the southern of which is about 200 yards wide, and dry four months in the year. The bed of the northern branch is worn into channels by the constant course of the water, and attrition of the pebble stones carried on with that, so as to be passable for batteaux through the greater part of the year. Yet it is thought that the southern arm may be the most easily opened for constant navigation. The rise of the waters in these rapids does not exceed 10 or 12 feet. A part of this island is so high as to have been never overflowed, and to command the settlement of Louisville, which is opposite to it. The fort, however, is situated at the head of the falls. The ground on the South side rises very gradually.

The Tennesee, Cherokee, or Hogohege river is 600 yards wide at its mouth, ¼ of a mile at the mouth of the Holston, and two hundred yards at Chotée, which is 20 miles above Holston, and three hundred miles above the mouth of the Tennesee. This river crosses the southern boundary of Virginia, 58 miles from the Mississippi. Its current is moderate. It is navigable for loaded boats of any burden to the Muscleshoals, where the river passes through the Cumberland mountain. These shoals are 6 or 8 miles long, passable downwards for loaded canoes, but not upwards, unless there be a swell in the river. Above these the navigation for loaded canoes and batteaux continues to the Long island. This river has its inundations also. Above the Chickamogga towns is a whirlpool called the Suckingpot, which takes in trunks of trees or boats, and throws them out again half a mile below. It is avoided by keeping very close to the bank, on the south side. There are but a few miles portage between a branch of this river and the navigable waters of the river Mobile, which runs into the gulph of Mexico.

Cumberland, or Shawanee river, intersects the boundary between Virginia and North Carolina 67 miles from the Mississippi, and again 198 miles from the same river, a little above the entrance of Obey’s river into the Cumberland. Its clear fork crosses the same boundary about 300 miles from the Mississippi. Cumberland is a very gentle stream, navigable for loaded batteaux 800 miles, without interruption; then intervene some rapids of 15 miles in length, after which it is again navigable 70 miles upwards, which brings you within 10 miles of the Cumberland mountains. It is about 120 yards wide throughout its whole course, from the head of its navigation to its mouth.

The Wabash is a very beautiful river, 400 yards wide at the mouth, and 300 at St. Vincennes, which is a post 100 miles above the mouth, in a direct line. Within this space there are two small rapids, which give very little obstruction to the navigation. It is 400 yards wide at the mouth, and navigable 30 leagues upwards for canoes and small boats. From the mouth of Maple river to that of Eel river is about 80 miles in a direct line, the river continuing navigable and from one to two hundred yards in width. The Eel river is 150 yards wide, and affords at all times navigation for periquagas, to within 18 miles of the Miami of the lake. The Wabash, from the mouth of Eel river to little river, a distance of 50 miles direct, is interrupted with frequent rapids and shoals, which obstruct the navigation, except in a swell. Little river affords navigation during a swell to within 3 miles of the Miami, which thence affords a similar navigation into Lake Erie, 100 miles distant in a direct line. The Wabash overflows periodically in correspondence with the Ohio, and in some places two leagues from its banks.
Green River is navigable for loaded batteaux at all times 50 miles upwards; but it is then interrupted by impassable rapids, above which the navigation again commences and continues good 30 or 40 miles to the mouth of Barren river.

Kentucky River is 90 yards wide at the mouth, and also at Boonsborough, 80 miles above. It affords a navigation for loaded batteaux 180 miles in a direct line, in the winter tides.

The Great Miami of the Ohio, is 200 yards wide at the mouth. At the Piccawee towns, 75 miles above, it is reduced to 30 yards; it is, nevertheless, navigable for loaded canoes 50 miles above these towns. The portage from its western branch into the Miami of Lake Erie, is 5 miles; that from its eastern branch into Sandusky river is of 9 miles.

Salt River is at all times navigable for loaded batteaux 70 or 80 miles. It is 80 yards wide at its mouth, and keeps that width to its fork, 25 miles above.

The Little Miami of the Ohio, is 60 or 70 yards wide at its mouth, 60 miles to its source, and affords no navigation.

The Sioto is 250 yards wide at its mouth, which is in latitude 38° 22′. and at the Saltlick towns, 200 miles above the mouth, it is yet 100 yards wide. To these towns it is navigable for loaded batteaux, and its eastern branch affords navigation almost to its source.

Great Sandy river is about sixty yards wide, and navigable sixty miles for loaded batteaux.

Guiandot is about the width of the river last mentioned, but is more rapid. It may be navigated by canoes sixty miles.

The Great Kanhaway is a river of considerable note for the fertility of its lands, and still more, as leading towards the head waters of James river. Nevertheless it is doubtful whether its great and numerous rapids will admit a navigation, but at an expense to which it will require ages to render its inhabitants equal. The great obstacles begin at what are called the great falls, 90 miles above the mouth, below which are only five or six rapids, and these passable, with some difficulty, even at low water. From the falls to the mouth of Greenbriar is 100 miles, and thence to the lead mines 120. It is 280 yards wide at its mouth.

Hock-hocking is 8 yards wide at its mouth, and yields navigation for loaded batteaux to the Pressplace, 60 miles above its mouth.

The Little Kanhaway is 150 yards wide at the mouth. It yields a navigation of 10 miles only. Perhaps its northern branch, called Junius’s creek, which interlocks with the western of Monongahela, may one day admit a shorter passage from the latter into the Ohio.
The Muskingum is 280 yards wide at its mouth, and 200 yards at the lower Indian towns, 150 miles upwards. It is navigable for small batteaux to within one mile of a navigable part of Cayahoga river, which runs into lake Erie.

At Fort Pitt the river Ohio loses its name, branching into the Monongahela and Allegany.

The Monongahela is 400 yards wide at its mouth. From thence is 12 or 15 miles to the mouth of Yohoganey, where it is 300 yards wide. Thence to Redstone by water is 50 miles, by land 30. Then to the mouth of Cheat river by water 40 miles, by land 28, the width continuing at 300 yards, and the navigation good for boats. Thence the width is about 200 yards to the western fork, 50 miles higher, and the navigation frequently interrupted by rapids, which however with a swell of two or three feet, become very passable for boats. It then admits light boats, except in dry seasons, 65 miles further to the head of Tygart’s valley, presenting only some small rapids and falls of one or two feet perpendicular, and lessening in its width to 20 yards. The Western fork is navigable in the winter 10 or 15 miles towards the northern of the Little Kanawaway, and will admit a good wagon road to it. The Yohoganey is the principal branch of this river. It passes through the Laurel mountain, about 30 miles from its mouth; is so far from 300 to 150 yards wide, and the navigation much obstructed in dry weather by rapids and shoals. In its passage through the mountain it makes very great falls, admitting no navigation for ten miles to the Turkey foot. Thence to the great crossing, about 20 miles, it is again navigable, except in dry seasons, and at this place is 200 yards wide. The sources of this river are divided from those of the Patowmac by the Allegany mountain. From the falls, where it intersects the Laurel mountain, to Fort Cumberland, the head of the navigation on the Patowmac, is 40 miles of very mountainous road. Wills’ creek, at the mouth of which was Fort Cumberland, is 30 or 40 yards wide, but affords no navigation as yet. Cheat river, another considerable branch of the Monongahela, is 200 yards wide at its mouth, and 100 yards at the Dunkard’s settlement, 50 miles higher. It is navigable for boats, except in dry seasons. The boundary between Virginia and Pennsylvania crosses it about three or four miles above its mouth.

The Allegany river, with a slight swell, affords navigation for light batteaux to Venango, at the mouth of French creek, where it is 200 yards wide, and is practised even to Le Bœuf, from whence there is a portage of 15 miles to Presque Isle on the Lake Erie.

The country watered by the Missisipi and its eastern branches constitutes five-eighths of the United States, two of which five-eighths are occupied by the Ohio and its waters: the residuary streams which run into the gulph of Mexico, the Atlantic, and the St. Laurence water remaining three-eighths.

Before we quit the subject of the western waters we will take a view of their principal connections with the Atlantic. These are three; the Hudson’s river, the Patowmac, and the Mississipi itself. Down the last will pass all heavy commodoties. But the navigation through the Gulph of Mexico is so dangerous, and that up the Mississipi so difficult and tedious, that it is thought probable that European merchandise will not return through that channel. It is most
likely that flour, timber, and other heavy articles will be floated on rafts, which will themselves be an article for sale as well as their loading, the navigators returning by land, or in light bateaux. There will, therefore, be a competition between the Hudson and Patowmac rivers for the residue of the commerce of all the country westward of Lake Erie, on the waters of the lakes, of the Ohio, and upper parts of the Missisipi. To go to New York, that part of the trade which comes from the lakes or their waters, must first be brought into Lake Erie. Between Lake Superior and its waters and Huron are the rapids of St. Mary, which will permit boats to pass, but not larger vessels. Lakes Huron and Michigan afford communication with Lake Erie by vessels of 8 feet draught. That part of the trade which comes from the waters of the Missisipi must pass from them through some portage into the waters of the lakes. The portage from the Illinois river into a water of Michigan is of one mile only. From the Wabash, Miami, Muskinghum, or Alleganey, are portages into the waters of Lake Erie, of from one to fifteen miles. When the commodities are brought into, and have passed through Lake Erie, there is between that and Ontario an interruption by the falls of Niagara, where the portage is of 8 miles; and between Ontario and the Hudson’s river are portages at the falls of Onondago, a little above Oswego, of a quarter of a mile; from Wood creek to the Mohawks river two miles; at the little falls of the Mohawks river half a mile; and from Schenectady to Albany sixteen miles. Besides the increase of expense occasioned by frequent change of carriage, there is an increased risk of pillage produced by committing merchandize to a greater number of hands successively. The Patowmac offers itself under the following circumstances: For the trade of the lakes and their waters westward of Lake Erie, when it shall have entered that lake, it must coast along its southern shore, on account of the number and excellence of its harbours; the northern, though shortest, having few harbours, and these unsafe. Having reached Cayahoga, to proceed on to New York it will have 825 miles and five portages; whereas it is but 425 miles to Alexandria, its emporium on the Patowmac, if it turns into the Cayahoga and passes through that, Bigbeaver, Ohio, Yohogania, or Monongalia and Cheat,) and Patowmac, and there are but two portages; the first of which between Cayahoga and Beaver, may be removed by uniting the sources of these waters, which are lakes in the neighborhood of each other and in a champaign country; the other to waters of Ohio to Patowmac will be from 15 to 40 miles, according to the trouble which shall be taken to approach the two navigations. For the trade of the Ohio, or that which shall come into it from its own waters of the Missisipi, it is nearer through the Patowmac to Alexandria than to New York by 580 miles, and it is interrupted by one portage only. There is another circumstance of difference too. The lakes themselves never freeze, but the communications between them freeze and the Hudson’s river is itself shut up by the ice three months in the year; whereas the channel to the Chesapeak leads directly into a warmer climate. The southern parts of it very rarely freeze at all, and whenever the northern do, it is so near the sources of the rivers, that the frequent floods to which they are there liable, break up the ice immediately, so that vessels may pass through the whole winter, subject only to accidental and short delays. Add to all this, that in case of war with our neighbors, the Anglo-Americans or the Indians, the route to New York becomes a frontier through almost its whole length, and all commerce through it ceases at that moment.—But the channel to New York is already known to practice, whereas the upper waters of the Ohio and the Patowmac, and the great falls of the latter, are yet to be cleared of their fixed obstructions.
QUERY III
A notice of the best-seaports of the state, and how big are the vessels they can receive?

Having no ports but our rivers and creeks, this Query has been answered under the preceding one.
QUERY IV
A notice of its Mountains?

For the particular geography of our mountains I must refer to Fry and Jefferson’s map of Virginia: and to Evans’ analysis of his map of America for a more philosophical view of them than is to be found in any other work. It is worthy notice, that our mountains are not solitary and scattered confusedly over the face of the country; but that they commence at about 150 miles from the sea-coast, are disposed in ridges one behind another, running nearly parallel with the sea-coast, though rather approaching it as they advance north-eastwardly. To the south-west, as the tract of country between the sea-coast and the Mississippi becomes narrower, the mountains converge into a single ridge, which, as it approaches the Gulph of Mexico, subsides into plain country, and gives rise to some of the waters of that Gulph, and particularly to a river called the Apalanchicola, probably from the Apalaches, an Indian nation formerly residing on it. Hence the mountains giving rise to that river, and seen from its various parts, were called the Apalachian mountains, being in fact the end or termination only of the great ridges passing through the continent. European geographers however extended the name northwardly as far as the mountains extended; some giving it, after their separation into different ridges, to the Blue ridge, others to the North mountain, others to the Alleghaney, others to the Laurel ridge, as may be seen by their different maps. But the fact I believe is, that none of these ridges were ever known by that name to the inhabitants, either native or emigrant, but as they saw them so called in European maps. In the same direction generally are the veins of limestone, coal and other minerals hitherto discovered: and so range the falls of our great rivers. But the courses of the great rivers are at right angles with these. James and Patowmac penetrate through all the ridges of mountains eastward of the Alleghaney. That is broken by no watercourse. It is in fact the spine of the country between the Atlantic on one side, and the Missisipi and St. Laurence on the other. The passage of the Patowmac through the Blue ridge is perhaps one of the most stupendous scenes in nature. You stand on a very high point of land. On your right comes up the Shenandoah, having ranged along the foot of the mountain an hundred miles to seek a vent. On your left approaches the Patowmac, in quest of a passage also. In the moment of their junction they rush together against the mountain, rend it asunder, and pass off to the sea. The first glance of this scene hurries our senses into the opinion that this earth has been created in time, that the mountains were formed first, that the rivers began to flow afterwards, that in this place particularly they have been dammed up by the Blue ridge of mountains, and have formed an ocean which filled the whole valley; that continuing to rise they have at length broken over at this spot, and have torn the mountain down from its summit to its base. The piles of rock on each hand, but particularly on the Shenandoah, the evident marks of their disruption and avulsion from their beds by the most powerful agents of nature, corroborate the impression. But the distant finishing which nature has given to the picture, is of a very different character. It is a true contrast to the foreground. It is as placid and delightful as that is wild and tremendous. For the mountain being cloven asunder, she presents to your eye, through the cleft, a small catch of smooth blue horizon, at an infinite distance in the plain country, inviting you, as it were, from the riot and tumult roaring around, to pass through the breach and participate of the calm below. Here the eye ultimately composes itself; and that way too the road happens actually to lead. You
cross the Patowmac above the junction, pass along its side through the base of the mountain for three miles, its terrible precipices hanging in fragments over you, and within about 20 miles reach Frederic town and the fine country around that. This scene is worth a voyage across the Atlantic. Yet here, as in the neighborhood of the natural bridge, are people who have passed their lives within half a dozen miles, and have never been to survey these monuments of a war between rivers and mountains which must have shaken the earth itself to its centre. —The height of our mountains has not yet been estimated with any degree of exactness. The Alleghaney being the great ridge which divides the waters of the Atlantic from those of the Missisipi, its summit is doubtless more elevated above the ocean than that of any other mountain. But its relative height, compared with the base on which it stands, is not so great as that of some others, the country rising behind the successive ridges like the steps of stairs. The mountains of the Blue ridge, and of these the Peaks of Otter, are thought to be of a greater height, measured from their base, than any others in our country, and perhaps in North America. From data, which may found a tolerable conjecture, we suppose the highest peak to be about 4000 feet perpendicular, which is not a fifth part of the height of the mountains of South America,1 nor one third of the height which would be necessary in our latitude to preserve ice in the open air unmelted through the year. The ridge of mountains next beyond the Blue ridge, called by us the North mountain, is of the greatest extent; for which reason they were named by the Indians the Endless mountains.2

A substance supposed to be Pumice, found floating on the Missisipi, has induced a conjecture that there is a volcano on some of its waters; and as these are mostly known to their sources, except the Missouri, our expectations of verifying the conjecture would of course be led to the mountains which divide the waters of the Mexican Gulph from those of the South sea; but no volcano having ever yet been known at such a distance from the sea, we must rather suppose that this floating substance has been erroneously deemed Pumice.1
QUERY V

Its cascades and caverns?

The only remarkable Cascade in this country is that of the Falling Spring in Augusta. It is a water of James river where it is called Jackson’s river, rising in the warm spring mountains, about twenty miles South West of the warm spring, and flowing into that valley. About three quarters of a mile from its source it falls over a rock 200 feet into the valley below. The sheet of water is broken in its breadth by the rock, in two or three places, but not at all in its height. Between the sheet and the rock, at the bottom, you may walk across dry. This Cataract will bear no comparison with that of Niagara as to the quantity of water composing it; the sheet being only 12 or 15 feet wide above, and somewhat more spread below; but it is half as high again, the latter being only 156 feet, according to the mensuration made by order of M. Vaudreuil, Governor of Canada, and 130 according to a more recent account.

In the limestone country there are many caverns of very considerable extent. The most noted is called Madison’s Cave, and is on the North side of the Blue ridge, near the intersection of the Rockingham
and Augusta line with the south fork of the southern river of Shenandoah. It is in a hill of about 200 feet perpendicular height, the ascent of which, on one side, is so steep, that you may pitch a biscuit from its summit into the river which washes its base. The entrance of the cave is, in this side, about two-thirds of the way up. It extends into the earth about 300 feet, branching into subordinate caverns, sometimes ascending a little, but more generally descending, and at length terminates, in two different places, at basons of water of unknown extent, and which I should judge to be nearly on a level with the water of the river; however, I do not think they are formed by refluent water from that, because they are never turbid; because they do not rise and fall in
correspondence with that in times of flood, or of drought; and because the water is always cool. It is probably one of the many reservoirs with which the interior parts of the earth are supposed to abound, and yield supplies to the fountains of water, distinguished from others only by being accessible. The vault of this cave is of solid lime-stone, from 20 to 40 or 50 feet high; through which water is continually percolating. This, trickling down the sides of the cave, has incrusted them over in the form of elegant drapery; and dripping from the top of the vault, generates on that, and on the base below, stalactites of a conical form, some of which have met and formed massive columns.

Another of these caves is near the North mountain, in the county of Frederic, on the lands of Mr. Zane. The entrance into this is on the top of an extensive
Ridge. You descend 30 or 40 feet, as into a well, from whence the cave then extends, nearly horizontally, 400 feet into the earth, preserving a breadth of from 20 to 50 feet, and a height of from 5 to 12 feet. After entering this cave a few feet, the mercury, which in the open air was 50°, rose to 57° of Farenheit’s thermometer, answering to 11° of Reaumur’s, and it continued at that to the remotest parts of the cave. The uniform temperature of the cellars of the observatory of
Paris, which are 90 feet deep, and of all subterranean cavities of any depth, where no chymical agents may be supposed to produce a factitious heat, has been found to be 10°. of Reaumur, equal to 54½°. of Farenheit. The temperature of the cave above-mentioned so nearly corresponds with this, that the difference may be ascribed to a difference of instruments.

At the Panther gap, in the ridge which divides the waters of the Cow and the Calf pasture, is what is called the Blowing cave. It is in the side of a hill, is of about 100 feet diameter, and emits constantly a current of air of such force as to keep the weeds prostrate to the distance of twenty yards before it. This current is strongest in dry frosty weather, and in long spells of rain weakest. Regular inspirations and expirations of air, by caverns and fissures, have been probably enough accounted for, by supposing them combined with intermitting fountains; as they must of course inhale air while their reservoirs are emptying themselves, and again emit it while they are filling. But a constant issue of air, only varying in its force as the weather is drier or damper, will require a new hypothesis. There is another blowing cave in the Cumberland mountain, about a mile from where it crosses the Carolina line. All we know of this is, that it is not constant, and that a fountain of water issues from it.

The Natural bridge, the most sublime of Nature’s works, though not comprehended under the present head, must not be pretermitted. It is on the ascent of a hill, which seems to have been cloven through its length by some great convulsion. The fissure, just at the bridge, is, by some admeasurements, 270 feet deep, by others only 205. It is about 45 feet wide at the bottom and 90 feet at the top; this of course determines the length of the bridge, and its height from the water. Its breadth in the middle is about 60 feet, but more at the ends, and the thickness of the mass at the summit of the arch, about 40 feet. A part of this thickness is constituted by a coat of earth, which gives growth to many large trees. The residue, with the hill on both sides, is one solid rock of limestone. The arch approaches the Semi-elliptical form; but the larger axis of the ellipsis, which would be the cord of the arch, is many times longer than the transverse. Though the sides of this bridge are provided in some parts with a parapet of fixed rocks, yet few men have resolution to walk to them, and look over into the abyss. You involuntarily fall on your hands and feet, creep to the parapet, and peep over
it. Looking down from this height about a minute, gave me a violent head ache. If the view from the top be painful and intolerable, that from below is delightful in an equal extreme. It is impossible for the emotions arising from the sublime to be felt beyond what they are here; so beautiful an arch, so elevated, so light, and springing as it were up to heaven, the rapture of the spectator is really indescribable! The fissure continuing narrow, deep, and straight for a considerable distance above and below the bridge, opens a short but very pleasing view of the North mountain on one side, and the Blue ridge on the other, at the distance each of them of about five miles. This bridge is in the county of Rockbridge, to which it has given name, and affords a public and commodious passage over a valley which cannot be crossed elsewhere for a considerable distance. The stream passing under it is called Cedar creek. It is a water of James river, and sufficient in the driest seasons to turn a grist mill, though its fountain is not more than two miles above.
QUERY VI
A notice of the mines and other subterraneous riches; its trees, plants, fruits, &c.

I knew a single instance of gold found in this state. It was interspersed in small specks through a lump of ore of about four pounds weight, which yielded seventeen pennyweights of gold, of extraordinary ductility. This ore was found on the north side of Rappahanoc, about four miles below the falls. I never heard of any other indication of gold in its neighborhood.

On the Great Kanhaway, opposite to the mouth of Cripple creek, and about twenty-five miles from our southern boundary, in the county of Montgomery, are mines of lead. The metal is mixed, sometimes with earth, and sometimes with rock, which requires the force of gunpowder to open it; and is accompanied with a portion of silver too small to be worth separation under any process hitherto attempted there. The proportion yielded is from 50 to 80 pounds of pure metal from 100 pounds of washed ore. The most common is that of 60 to 100 pounds. The veins are sometimes most flattering, at others they disappear suddenly and totally. They enter the side of the hill and proceed horizontally. Two of them are wrought at present by the public, the best of which is 100 yards under the hill. These would employ about 50 laborers to advantage. We have not, however, more than 30 generally, and these cultivate their own corn. They have produced 60 tons of lead in the year; but the general quantity is from 20 to 25 tons. The present furnace is a mile from the ore-bank and on the opposite side of the river. The ore is first waggoned to the river, a quarter of a mile, then laden on board of canoes and carried across the river, which is there about 200 yards wide, and then again taken into waggons and carried to the furnace. This mode was originally adopted that they might avail themselves of a good situation on a creek, for a pounding mill: but it would be easy to have the furnace and pounding mill on the same side of the river, which would yield water, without any dam, by a canal of about half a mile in length. From the furnace the lead is transported 130 miles along a good road, leading through the peaks of Otter to Lynch’s ferry, or Winston’s on James river, from whence it is carried by water about the same distance to Westham. This land carriage may be greatly shortened, by delivering the lead on James river, above the blue ridge, from whence a ton weight has been brought on two canoes. The Great Kanhaway has considerable falls in the neighborhood of the mines. About seven miles below are three falls, of three or four feet perpendicular each; and three miles above is a rapid of three miles continuance, which has been compared in its descent to the great fall of James river. Yet it is the opinion, that they may be laid open for useful navigation, so as to reduce very much the portage between the Kanahaway and James river.

A valuable lead mine is said to have been lately discovered in Cumberland, below the mouth of Red river. The greatest, however, known in the western country, are the Missisipi, extending from the mouth of Rock river 150 miles upwards. These are not wrought, the lead used in that country being from the banks on the Spanish side of the Missisipi, opposite to Kaskaskia.

A mine of copper was once opened in the county of Amherst, on the North side of James river, and another in the opposite country, on the South side. However, either from bad management or
the poverty of the veins, they were discontinued. We are told of a rich mine of native copper on
the Ouabache, below the upper Wiaw.

The mines of iron worked at present, are Callaway’s, Ross’s, and Ballendine’s on the South side
of James river; Old’s on the North side, in Albemarle; Miller’s in Augusta, and Zane’s in
Frederic. These two last are in the valley between the Blue ridge and the North mountain.
Callaway’s, Ross’s, Miller’s, and Zane’s make about 150 tons of bar iron each, in the year.
Ross’s makes also about 1600 tons of pig iron annually; Ballendine’s 1000; Callaway’s, Miller’s,
and Zane’s, about 600 each. Besides these, a forge of Mr. Hunter’s, at Fredericksburgh, makes
about 300 tons a year of bar iron, from pigs imported from Maryland; and Taylor’s forge on
Neapsco of Patowmac, works in the same way, but to what extent I am not informed. The
indications of iron in other places are numerous, and dispersed through all the middle country.
The toughness of the cast iron of Ross’s and Zane’s furnaces is very remarkable. Pots and other
utensils cast thinner than usual, of this iron, may be safely thrown into, or out of the wagons on
which they are transported. Salt-panns made of the same, and no longer wanted for that purpose,
cannot be broken up, in order to be melted again, unless previously drilled in many parts.

In the western country, we are told of iron mines between the Muskingham1 and Ohio; of others
on Kentucky, between the Cumberland and Barren rivers, between Cumberland and Tannissee,
on Reedy creek near the Long island, and on Chesnut creek, a branch of the great Kanhaway,
next where it crosses the Carolina line. What are called the iron banks, on the Missisipi, are
believed, by a good judge, to have no iron in them. In general, from what is hitherto known of
that country, it seems to want iron.

Considerable quantities of black lead are taken occasionally for use from Winterham in the
county of Amelia. I am not able, however, to give a particular state of the mine. There is no work
established at it; those who want going and procuring it for themselves.

The country on James river, from 15 to 20 miles above Richmond, and for several miles
northward and southward, is replete with mineral coal of a very excellent quality. Being in the
hands of many proprietors, pits have been opened, and, before the interruption of our commerce,
were worked to an extent equal to the demand.

In the western country coal is known to be in so many places, as to have induced an opinion, that
the whole tract between the Laurel mountain, Missisipi, and Ohio, yields coal. It is also known in
many places on the North side of the Ohio. The coal at Pittsburg is of very superior quality. A
bed of it at that place has been afire since the year 1765. Another coal-hill on the Pike-run of
Monongahela has been afire ten years; yet it has burnt away about twenty yards only.

I have known one instance of an Emerald found in this country. Amethysts have been frequent,
and chrystals common; yet not in such numbers any of them as to be worth seeking.
There is very good marble, and in very great abundance, on James river, at the mouth of Rockfish. The samples I have seen were some of them of a white as pure as one might expect to find on the surface of the earth: but most of them were variegated with red, blue, and purple. None of it has been ever worked. It forms a very large precipice, which hangs over a navigable part of the river. It is said there is marble at Kentucky.

But one vein of limestone is known below the Blue ridge. Its first appearance, in our country, is in Prince William, two miles below the Pignut ridge of mountains; thence it passes on nearly parallel with that and crosses the Rivanna about five miles below it, where it is called the South-west ridge. It then crosses the Hardware, above the mouth of Hudson’s creek, James river at the mouth of Rockfish, at the marble quarry before spoken of, probably runs up that river to where it appears again at Ross’s iron-works, and so passes off south-westwardly by Flat creek of Otter river. It is never more than one hundred yards wide. From the Blue ridge westwardly, the whole country seems to be founded on a rock of limestone, besides infinite quantities on the surface, both loose and fixed. This is cut into beds, which range, as the mountains and sea-coast do, from south-west to north east, the lamina of each bed declining from the horizon towards a parallelism with the axis of the earth. Being struck with this observation, I made, with a quadrant, a great number of trials on the angles of their declination, and found them to vary from 22° to 60°. but averaging all my trials, the result was within one-third of a degree of the elevation of the pole or latitude of the place, and much of the greatest part of them taken separately were little different from that; by which it appears, that these lamina are, in the main, parallel with the axis of the earth. In some instances, indeed, I found them perpendicular, and even reclining the other way; but these were extremely rare, and always attended with signs of convulsion, or other circumstances of singularity, which admitted a possibility of removal from their original position. These trials were made between Madison’s cave and the Patowmac. We hear of limestone on the Missisipi and Ohio, and in all the mountainous country between the eastern and western waters, not on the mountains themselves, but occupying the valleys between them.1

Near the eastern foot of the North mountain are immense bodies of Schist, containing impressions of shells in a variety of forms. I have received petrified shells of very different kinds from the first sources of Kentucky, which bear no resemblance to any I have ever seen on the tide-waters. It is said1 that shells are found in the Andes, in South-America, fifteen thousand feet above the level of the ocean. This is considered by many, both of the learned and unlearned, as a proof of an universal deluge. To the many considerations opposing this opinion, the following may be added. The atmosphere, and all its contents, whether of water, air, or other matters, gravitate to the earth; that is to say, they have weight. Experience tells us, that the weight of all these together never exceeds that of a column of mercury of 31 inches height, which is equal to one of rain water of 35 feet high. If the whole contents of the atmosphere, then, were water, instead of what they are, it would cover the globe but 35 feet deep; but as these waters, as they fell, would run into the seas, the superficial measure of which is to that of the dry parts of the globe, as two to one, the seas would be raised only 52½ feet above their present level, and of course would overflow the lands to that height only. In Virginia this would be a very small proportion even of the champaign country, the banks of our tidewaters being frequently, if not
generally, of a greater height. Deluges beyond this extent, then, as for instance to the North mountain or to Kentucky, seem out of the laws of nature. But within it they may have taken place to a greater or less degree, in proportion to the combination of natural causes which may be supposed to have produced them. History renders probably some instances of a partial deluge in the country lying round the Mediterranean sea. It has been often supposed, and it is not unlikely, that that sea was once a lake. While such, let us admit an extraordinary collection of the waters of the atmosphere from the other parts of the globe to have been discharged over that and the countries whose waters run into it. That lake may thus have been so raised as to overflow the low lands adjacent to it, as those of Egypt and Armenia, which, according to a tradition of the Egyptians and Hebrews, were overflowed about 2300 years before the Christian era; those of Attica, said to have been overflowed in the time of Ogyges, about 500 years later; and those of Thessaly, in the time of Deucalion, still 300 years posterior. But such deluges as these will not account for the shells found in the higher lands. Besides the usual process for generating shells by the elaboration of earth and water in animal vessels, may not nature have provided an equivalent operation, by passing the same materials through the pores of calcareous earths and stones? As we see calcareous drop-stones generating every day by the percolation of water through lime-stone, and new marble forming in the quaries from which the old has been taken out, which is said to be the case in the quaries of Italy. Is it more difficult for nature to shoot the calcareous juice into the form of a shell, than other juices into the forms of Chrystals, plants, animals, according to the construction of the vessels through which they pass? There is a wonder somewhere. Is it greatest on this branch of a dilemma, or on that which supposes the creation of such a body of water, and its subsequent annihilation? Have not Naturalists already brought themselves to believe much stranger things? Thus, they seriously concur in the opinion that those immense hills and plains of marble to be found in every quarter of the globe, nay the very foundation of the earth itself, which is of limestone in large tracts of this country, and probably of others, and has been found here to continue solid to the depth of 200 feet, farther than which we have not penetrated, that these, I say, and all other calcareous bodies, are animal remains. Monsieur de Voltaire, who seems first to have suspected that shells might grow unconnected with animal bodies, specifies an instance in a particular place in France, which has never yet, as far as I have heard, been disproved or denied.

There is great abundance (more especially when you approach the mountains) of stone, white, blue, brown, &c., fit for the chisel, good milstone, such also as stands the fire, and slatestone. We are told of flints, fit for gunflints, on the Meherrin in Brunswic, on the Mississipi between the mouth of the Ohio and Kaskaskia, and on others of the western waters. Isinglass or mica is in several places; loadstone also; and an Asbestos of the ligneous texture, is sometimes to be met with.

Marle abounds generally: A clay, of which, like the Sturbridge in England, bricks are made, which will resist long the violent action of fire, has been found on Tuckahoe creek of James river, and no doubt will be found in other places. Chalk is said to be in Botetourt and Bedford. In the latter county is some earth believed to be Gypseous. Ochres are found in various parts.
In the limestone country are many caves, the earthy floors of which are impregnated with nitre. On Rich creek, a branch of the Great Kanhaway about 60 miles below the lead mines, is a very large one, about 20 yards wide, and entering a hill a quarter or half a mile. The vault is of rock, from 9 to 15 or 20 feet above the floor. A Mr. Lynch, who gives me this account, undertook to extract the nitre. Besides a coat of the salt which had formed on the vault and floor, he found the earth highly impregnated to the depth of seven feet in some places, and generally of three, every bushel yielding on an average three pounds of nitre. Mr. Lynch having made about 1000 pounds of the salt from it, consigned it to some others, who have since made 10,000 lb. They have done this by pursuing the cave into the hill, never trying a second time the earth they have once exhausted, to see how far or soon it receives another impregnation. At least fifty of these caves are worked on the Greenbriar. There are many of them known on Cumberland river.

The country westward of the Alleghaney abounds with springs of common salt. The most remarkable we have heard of are at Bullet’s lick, the Big bones, the Blue licks, and on the North fork of Holston. The area of Bullet’s lick is of many acres. Digging the earth to the depth of three feet the water begins to boil up, and the deeper you go, and the drier the weather, the stronger is the brine. A thousand gallons of water yield from a bushel to a bushel and a half of salt, which is about 80 lb. of water to one lb. of salt; but of sea water 25 lb. yield one lb. of salt. So that sea water is more than three times as strong as that of these springs. A salt spring has been lately discovered at the Turkey foot on Yohogany, by which river it is overflowed, except at very low water. Its merit is not yet known. Dunning’s lick is also as yet untried, but it is supposed to be the best on this side the Ohio. The salt springs on the margin of the Onondago lake are said to give a saline taste to the waters of the lake.

There are several Medicinal springs, some of which are indubitably efficacious, while others seem to owe their reputation as much to fancy and change of air and regimen, as to their real virtues. None of them having undergone a chemical analysis in skilful hands, nor been so far the subject of observations as to have produced a reduction into classes of the disorders which they relieve; it is in my power to give little more than an enumeration of them.

The most efficacious of these are two springs in Augusta, near the first sources of James river, where it is called Jackson’s river. They rise near the foot of the ridge of mountains, generally called the Warmspring mountain, but in the maps Jacksons mountains. The one distinguished by the name of the Warmspring, and the other of the Hot-spring. The Warmspring issues with a very bold stream, sufficient to work a grist-mill and to keep the waters of its basin, which is 30 feet in diameter at the vital warmth, viz. 96° of Farenheit’s thermometer. The matter with which these waters are allied is very volatile; its smell indicates it to be sulphureous, as also does the circumstance of its turning silver black. They relieve rheumatisms. Other complaints also of very different natures have been removed or lessened by them. It rains here four or five days in every week.

The Hot-spring is about six miles from the Warm, is much smaller, and has been so hot as to have boiled an egg. Some believe its degree of heat to be lessened. It raises the mercury in
Farenheit's thermometer to 112 degrees, which is fever heat. It sometimes relieves where the Warmspring fails. A fountain of common water, issuing within a few inches of its margin, gives it a singular appearance. Comparing the temperature of these with that of the Hot-springs of Kamschatka, of which Krachininikow gives an account, the difference is very great, the latter raising the mercury to 200°. which is within 12°. of boiling water. These springs are very much resorted to in spite of a total want of accommodation for the sick. Their waters are strongest in the hottest months, which occasion their being visited in July and August principally.

The Sweet springs are in the county of Botetourt, at the eastern foot of the Alleghaney, about 42 miles from the Warm-springs. They are still less known. Having been found to relieve cases in which the others had been ineffectually tried, it is probable their composition is different. They are different also in their temperature, being as cold as common water: which is not mentioned, however, as a proof of a distinct impregnation. This is among the first sources of James river.

On Patowmac river, in Berkeley county, above the North mountain, are Medicinal springs, much more frequented than those of Augusta. Their powers, however, are less, the waters weakly mineralized, and scarcely warm. They are more visited, because situated in a fertile, plentiful, and populous country, better provided with accommodations, always safe from the Indians, and nearest to the more populous States.

In Louisa county, on the head waters of the South Anna branch of York river, are springs of some medicinal virtue. They are not much used however. There is a weak Chalybeate at Richmond; and many others in various parts of the country, which are of too little worth, or too little note, to be enumerated after those before-mentioned.

We are told of a Sulphur-spring on Howard’s creek of Greenbriar, and another at Boonsborough on Kentuckey.

In the low grounds of the Great Kanhaway, 7 miles above the mouth of Elk River, and 67 above that of the Kanhaway itself, is a hole in the earth of the capacity of 30 or 40 gallons, from which issues constantly a bituminous vapour in so strong a current as to give to the sand about its orifice the motion which it has in a boiling spring. On presenting a lighted candle or torch within 18 inches of the hole it flames up in a column of 18 inches in diameter, and four or five feet height, which sometimes burns out in 20 minutes, and at other times has been known to continue three days, and then has been still left burning. The flame is unsteady, of the density of that of burning spirits, and smells like burning pit coal. Water sometimes collects in the basin, which is remarkably cold, and is kept in ebullition by the vapor issuing through it. If the vapor be fired in that state, the water soon becomes so warm that the hand cannot bear it, and evaporates wholly in a short time. This, with the circumjacent lands, is the property of his Excellency General Washington and of General Lewis.
There is a similar one on Sandy river, the flame of which is a column of about 12 inches diameter, and 3 feet high. General Clarke, who informs me of it, kindled the vapour, staid about an hour, and left it burning.

The mention of uncommon springs leads me to that of Syphon fountains. There is one of these near the intersection of Lord Fairfax’s boundary with the North mountain, not far from Brock’s gap, on the stream of which is a grist-mill, which grinds two bushels of grain at every flood of the spring; another, near the Cow-pasture river, a mile and a half below its confluence with the Bull-pasture river, and 16 or 17 miles from Hot-springs, which intermits once in every twelve hours; one also near the mouth of the North Holston.1

After these may be mentioned the Natural Well on the lands of a Mr. Lewis in Frederick county. It is somewhat larger than a common well; the water rises in it as near the surface of the earth as in the neighboring artificial wells, and is of a depth as yet unknown. It is said there is a current in it tending sensibly downwards. If this be true, it probably feeds some fountain, of which it is the natural reservoir, distinguished from others, like that of Madison’s cave, by being accessible. It is used with a bucket and windlass, as an ordinary well.

A complete catalogue of the trees, plants, fruits, &c. is probably not desired. I will sketch out those which would principally attract notice, as being 1. Medicinal, 2. Esculent, 3. Ornamental, or 4. Useful for fabrication; adding the Linnaean to the popular names, as the latter might not convey precise information to a foreigner. I shall confine myself too to native plants.

On the State of Virginia by Thomas Jefferson


Tobacco. Nicotiana.

Maize. Zea mays

Round potato Solanum tuberosum.

Pumpkins. Cucurbita pepo.

Cymlings. Cucurbita verrucosa.

Squashes. Cucurbita melopepo.

There is an infinitude of other plants and flowers, for an enumeration and scientific description of which I must refer to the Flora Virginica of our great botanist Dr. Clayton, published by Gronovius at Leyden, in 1762. This accurate observer was a native and resident of this state, passed a long life in exploring and describing its plants, and is supposed to have enlarged the botanical catalogue as much as almost any man who has lived.

Besides these plants, which are native, our Farms produce wheat, rye, barley, oats, buck wheat, broomcorn, and Indian corn. The climate suits rice well enough, wherever the lands do. Tobacco, hemp, flax and cotton, are staple commodities. Indico yields two cuttings. The silk-worm is a native, and the mulberry, proper for its food, grows kindly.

We cultivate also potatoes, both the long and the round, turneps, carrots, parsneps, pumpkins, and ground nuts (Arachis). Our grasses are Lucerne, St. Foin, Burnet, Timothy, ray, and orchard grass; red, white and yellow clover; greensward, blue grass, and crab grass.

The gardens yield muskmelons, watermelons, tomatoes, okra, pomegranates, figs, and the esculant plants of Europe.
The orchards produce apples, pears, cherries, quinces, peaches, nectarines, apricots, almonds, and plumbs.

Our quadrupeds have been mostly described by Linnaeus and Mons. de Buffon. Of these the Mammoth, or big buffalo, as called by the Indians, must certainly have been the largest. Their tradition is that he was carnivorous, and still exists in the northern parts of America. A delegation of warriors from the Delaware tribe having visited the governor of Virginia, during the present revolution, on matters of business, after these had been discussed and settled in council, the governor asked them some questions relative to their country, and among others, what they knew or had heard of the animal whose bones were found at the Saltlicks, on the Ohio. Their chief speaker immediately put himself into an attitude of oratory, and with a pomp suited to what he conceived the elevation of his subject, informed him that it was a tradition handed down from their fathers, “That in ancient times a herd of these tremendous animals came to the Bigbone licks, and began an universal destruction of the bear, deer, elks, buffaloes, and other animals which had been created for the use of the Indians; that the Great Man above, looking down and seeing this, was so enraged that he seized his lightning, descended on the earth, seated himself on a neighboring mountain, on a rock of which his seat and the print of his feet are still to be seen, and hurled his bolts among them till the whole were slaughtered, except the big bull, who presenting his forehead to the shafts shook them off as they fell; but missing one at length, it wounded him in the side; whereon, springing round, be bounded over the Ohio, over the Wabache, the Illinois, and finally over the great lakes, where he is living at this day.” It is well known, that on the Ohio, and in many parts of America further north, tusks, grinders, and skeletons, of unparalleled magnitude, are found in great numbers, some lying on the surface of the earth, and some a little below it. A Mr. Stanley, taken prisoner near the mouth of the Tanissee, relates that, after being transferred through several tribes, from one to another, he was at length carried over the mountains west of the Missouri to a river which runs westwardly; that these bones abounded there, and that the natives described to him the animal to which they belonged as still existing in the northern parts of their country; from which description he judged it to be an elephant. Bones of the same kind have been lately found, some feet below the surface of the earth, in salines opened on the North Holston, a branch of the Tanissee, about the latitude of 36½°. north. From the accounts published in Europe, I suppose it to be decided that these are of the same kind with those found in Siberia. Instances are mentioned of like animal remains found in the more southern climates of both hemispheres; but they are either so loosely mentioned as to leave a doubt of the fact, so inaccurately described as not to authorize the classing them with the great northern bones, or so rare as to find a suspicion that they have been carried thither as curiosities from the northern regions. So that, on the whole, there seem to be no certain vestiges of the existence of this animal farther South than the salines just mentioned. It is remarkable that the tusks and skeletons have been ascribed by the naturalists of Europe to the elephant, while the grinders have been given to the hippopotamus, or river horse. Yet it is acknowledged that the tusks and skeletons are much larger than those of the elephant, and the grinders many times greater than those of the hippopotamus, and essentially different in form. Wherever these grinders are found, there also we find the tusks and skeletons; but no skeleton of the hippopotamus nor grinders of the elephant. It will not be said that the
hippopotamus and elephant came always to the same spot, the former to deposit his grinders, and
the latter his tusks and skeleton. For what became of the parts not deposited there? We must
agree then, that these remains belong to each other, that they are of one and the same animal, that
this was not a hippopotamus, because the hippopotamus had no tusk nor such a frame, and
because the grinders differ in their size as well as in their number and form of their points. That
this was not an elephant, I think ascertained by proofs equally decisive. I will not avail myself of
the authority of the celebrated anatomist who, from an examination of the form and structure of
the tusks, has declared they were essentially different from those of the elephant; because
another anatomist, equally celebrated, has declared, on a like examination, that they are precisely
the same. Between two such authorities I will suppose this circumstance equivocal. But, 1. The
skeleton of the Mammoth (for so the incognitum has been called) bespeaks an animal of five or
six times\[ the cubic volume of the elephant, as Mons. de Buffon has ad-[74]mitted. 2. The
grinders are five times as large, are square, and the grinding surface studded with four or five
rows of blunt points: whereas those of the elephant are broad and thin, and their grinding surface
flat. 3. I have never heard an instance, and suppose there has been none, of the grinder of an
elephant being found in America. 4. From the known temperature and constitution of the
elephant, he could never have existed in those regions where the remains of the mammoth have
been found. The elephant is a native only of the torrid zone and its vicinities. If, with the
assistance of warm appartments and warm cloathing, he has been preserved in the temperate
climates of Europe, it has only been for a small portion of what would have been his natural
period, and no instance of his multiplication in them has ever been known. But no bones of the
mammoth, as I have before observed, have been ever found further south than the salines of
Holston, and they have been found as far north as the Arctic circle. Those, therefore, who are of
opinion that the elephant and mammoth are the same, must believe, 1. That the elephant known
to us can exist and multiply in the frozen zone; or, 2. That an internal fire may once have
warmed those regions, and since abandoned them, of which however the globe exhibits no
unequivocal indications. That the obliquity of the ecliptic, when these elephants lived, was so
great as to include within the tropics all those regions in which the bones are found; the tropics
being, as is before observed, the natural limits of habitation for the elephant. But if it be admitted
that this obliquity has really decreased, and we adopt the highest rate of decrease yet pretended,
that is, of one minute in a century, to transfer the northern tropic to the Arctic circle, would carry
the existence of these supposed elephants two hundred and fifty thousand years back; a period
far beyond our conception of the duration of animal bones left exposed to the open air than these
are in many instances. Besides, though these regions would then be supposed within the tropics,
yet their winters would have been too severe for the sensibility of the elephant. They would have
had too but one day and one night in the year, a circumstance to which we have no reason to
suppose the nature of the elephant fitted. However, it has been demonstrated that, if a variation
of obliquity in the Ecliptic takes place at all, it is vibratory, and never exceeds the limits of 9
degrees, which is not sufficient to bring these bones within the tropics. One of these hypotheses,
or some other equally voluntary and inadmissible to cautious philosophy, must be adopted to
support the opinion that there are the bones of the elephant. For my own part, I find it easier to
believe that an animal may have existed, resembling the elephant in his tusks, and general
anatomy, while his nature was in other respects extremely different. From the 30th degree of
South latitude to the 30th of North, are nearly the limits which nature has fixed for the existence and multiplication of the elephant known to us. Proceeding thence northwardly to 36½ degrees, we enter those assigned to the Mammoth. The further we advance North, the more their vestiges multiply as far as the earth has been explored in that direction; and it is as probable as otherwise, that this progression continues to the pole itself, if land extends so far. The center of the Frozen zone then may be the Achmé of of their vigour, as that of the torrid is of the elephant. Thus nature seems to have drawn a belt of separation between these two tremendous animals, whose breadth indeed, is not precisely known, though at present we may suppose it about 6½ degrees of latitude; to have assigned to the elephant the regions South of these confines, and those North to the Mammoth, founding the constitution of the one in her extreme of heat, and that of the other in the extreme of cold. When the Creator has therefore separated their nature as far as the extent of the scale of animal life allowed to this planet would permit, it seems perverse to declare it the same, from a partial resemblance of their tusks and bones. But to whatever animal we ascribe these remains, it is certain such a one has existed in America, and that it has been the largest of all terrestrial beings. It should have sufficed to have rescued the earth it inhabited, and the atmosphere it breathed, from the imputation of impotence in the conception and nourishment of animal life on a large scale: to have stifled, in its birth, the opinion of a writer, the most learned, too, of all others in the science of animal history, that in the new world, “La nature vivante est beaucoup moins agissante, beaucoup moins forte :” that nature is less active, less energetic on one side of the globe than she is on the other. As if both sides were not warmed by the same genial sun; as if a soil of the same chemical composition was less capable of elaboration into animal nutriment; as if the fruits and grains from that soil and sun yielded a less rich chyle, gave less extension to the solids and fluids of the body, or produced sooner in the cartilages, membranes and fibres, that rigidity which restrains all further extension, and terminates animal growth. The truth is, that a Pigmy and a Patagonian, a Mouse and a Mammoth, derive their dimensions from the same nutritive juices. The difference of increment depends on circumstances unsearchable to beings with our capacities. Every race of animals seems to have received from their maker certain laws of extension at the time of their formation. Their elaborative organs were formed to produce this, while proper obstacles were opposed to its further progress. Below these limits they cannot fall, nor rise above them. What intermediate station they shall take may depend on soil, on climate, on food, on a careful choice of breeders. But all the manna of heaven would never raise the Mouse to the bulk of the Mammoth.

The opinion advanced by the Count de Buffon is, 1. That the animals common both to the old and new world are smaller in the latter. 2. That those peculiar to the new are on a smaller scale. 3. That those which have been domesticated in both have degenerated in America: and 4. That on the whole it exhibits fewer species. And the reason he thinks is, that the heats of America are less; that more waters are spread over its surface by nature, and fewer of these drained off by the hand of man. In other words, that heat is friendly, and moisture adverse to the production and development of large quadrupeds. I will not meet this hypothesis on its first doubtful ground, whether the climate of America be comparatively more humid? Because we are not furnished with observations sufficient to decide this question. And though, till it be decided, we are as free to deny as others are to affirm the fact, yet for a moment let it be supposed. The hypothesis, after
this supposition, proceeds to another; that moisture is unfriendly to animal growth. The truth of this is inscrutable to us by reasonings à priori. Nature has hidden from us her modus agendi. Our only appeal on such questions is to experience; and I think that experience is against the supposition. It is by the assistance of heat and moisture that vegetables are elaborated from the elements of earth, air, water, and fire. We accordingly see the more humid climates produce the greater quantity of vegetables. Vegetables are mediately or immediately the food of every animal; and in proportion to the quantity of food, we see animals not only multiplied in their numbers, but improved in their bulk, as far as the laws of their nature will admit. Of this opinion is the Count de Buffon himself in another part of his work: “en general il paroit que les pays un peu froids conviennent mieux à nos bœufs que les pays chauds, et qu’ils sont d’autant plus gros et plus grands que le climat est plus humide et plus abondans en paturages. Les bœufs de Danemacrk, de la Podolie, de l’Ukraine et de la Tartarie qu’habitent les Calmouques sont les plus grands de tous.” Here then a race of animals and one of the largest too, has been increased in its dimensions by cold and moisture, in direct opposition to the hypothesis, which supposes that these two circumstances diminish animal bulk, and that it is their contraries heat and dryness which enlarge it. But when we appeal to experience, we are not to rest satisfied with a single fact. Let us, therefore, try our question on more general ground. Let us take two portions of the earth, Europe and America for instance, sufficiently extensive to give operation to general causes; let us consider the circumstances peculiar to each, and observe their effect on animal nature. America, running through the torrid as well as temperate zone, has more heat collectively taken, than Europe. But Europe, according to our hypothesis, is the driest. They are equally adapted then to animal productions; each being endowed with one of those causes which befriended animal growth, and with one which opposes it. If it be thought unequal to compare Europe with America, which is so much larger, I answer, not more so than to compare America with the whole world. Besides, the purpose of the comparison is to try an hypothesis, which makes the size of animals depend on the heat and moisture of climate. If, therefore, we take a region, so extensive as to comprehend a sensible distinction of climate, and so extensive too as that local accidents, or the intercourse of animals on its borders, may not materially affect the size of those in its interior parts, we shall comply with those conditions which the hypothesis may reasonably demand. The objection would be the weaker in the present case, because any intercourse of animals which may take place on the confines of Europe and Asia, is to the advantage of the former, Asia producing certainly larger animals than Europe. Let us then take a comparative view of the Quadrupeds of Europe and America, presenting them to the eye in three different tables, in one of which shall be enumerated those found in both countries; in a second, those found in one only; in a third, those which have been domesticated in both. To facilitate the comparison, let those of each table be arranged in gradation according to their sizes, from the greatest to the smallest, so far as their sizes can be conjectured. The weights of the large animals shall be expressed in the English avoirdupoise pound and its decimals; those of the smaller, in the same ounce and its decimals. Those which are marked thus, are actual weights of particular subjects, deemed among the largest of their species. Those marked thus†, are furnished by judicious persons, well acquainted with the species, and saying, from conjecture only, what the largest individual they had seen would probably have weighed. The other weights are taken from Messrs. Buffon and D’Aubenton, and are of such subjects as came casually to their hands for
dissection. This circumstance must be remembered where their weights and mine stand opposed; the latter being stated not to produce a conclusion in favor of the American species, but to justify a suspension of opinion until we are better informed, and a suspicion, in the meantime, that there is no uniform difference in favor of either; which is all I pretend.

*A comparative View of the Quadrupeds of Europe and of America*

I. ABORIGINALS OF BOTH

<table>
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<tr>
<th>Europe lb.</th>
<th>America lb.</th>
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<tbody>
<tr>
<td>Mammoth</td>
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<tr>
<td>Buffalo. Bison</td>
<td>*1800</td>
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<tr>
<td>White Bear. Ours blanc</td>
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<tr>
<td>Carribou. Renne</td>
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<tr>
<td>Bear. Ours</td>
<td>153.7</td>
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<tr>
<td>Elk. Elan. Original palmated</td>
<td>*273</td>
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<tr>
<td>Red deer. Cerf</td>
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<tr>
<td>Fallow Deer. Daim</td>
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<tr>
<td>Wolf. Loup</td>
<td>56.7</td>
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<td>Roe. Chevreuil</td>
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<tr>
<td>Glutton. Glouton. Carcajou</td>
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<tr>
<td>Wild Cat. Chat sauvage</td>
<td>†30</td>
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<tr>
<td>Lynx. Loup cervier</td>
<td>25</td>
</tr>
<tr>
<td>Beaver. Castor</td>
<td>18.5</td>
</tr>
<tr>
<td>Badger. Blaireau</td>
<td>13.6</td>
</tr>
<tr>
<td>Red fox. Renard</td>
<td>13.5</td>
</tr>
<tr>
<td>Gray fox. Isatis</td>
<td></td>
</tr>
<tr>
<td>Otter. Loutre</td>
<td>8.9</td>
</tr>
<tr>
<td>Monax. Marmotte</td>
<td>6.5</td>
</tr>
<tr>
<td>Vison. Fouine</td>
<td>2.8</td>
</tr>
<tr>
<td>Hedgehog. Herisson</td>
<td>2.2</td>
</tr>
<tr>
<td>Marten. Marte</td>
<td>1.9</td>
</tr>
<tr>
<td>Monax. Marmotte</td>
<td>†6 oz.</td>
</tr>
<tr>
<td>Water rat. Rat d’eau</td>
<td>7.5</td>
</tr>
<tr>
<td>Weasel. Belette</td>
<td>2.2 oz.</td>
</tr>
</tbody>
</table>
Europe lb. America lb.

| Flying squirrel. Polatouche | 2.2 | †4 |
| Shrew mouse Musaraigne | 1. | [85] |

II. ABORIGINALS OF ONE ONLY

<table>
<thead>
<tr>
<th>europe.</th>
<th></th>
<th>lb.</th>
<th>america.</th>
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<th>lb.</th>
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<tbody>
<tr>
<td>Mouflon. Wild Sheep</td>
<td>56.</td>
<td></td>
<td>Elk, round horned</td>
<td>†450.</td>
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</tr>
<tr>
<td>Bouquetin. Wild goat</td>
<td></td>
<td></td>
<td>Puma</td>
<td></td>
<td></td>
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<tr>
<td>Lievre. Hare</td>
<td>7.6</td>
<td></td>
<td>Jaguar</td>
<td>218.</td>
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<tr>
<td>Lapin. Rabbit</td>
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<td></td>
<td>Cabiai</td>
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<tr>
<td>Putois. Polecat</td>
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<td>Tamanoir</td>
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<tr>
<td>Genette</td>
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<td>Tammandua</td>
<td>65.4</td>
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<tr>
<td>Desman. Muskrat</td>
<td>oz.</td>
<td></td>
<td>Cougar of North-America</td>
<td>75.</td>
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</tr>
<tr>
<td>Ecureuil. Squirrel</td>
<td>12.</td>
<td></td>
<td>Cougar of South-America</td>
<td>59.4</td>
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<tr>
<td>Hermine. Ermin</td>
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<td>Ocelot</td>
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<td>Rat. Rat</td>
<td>7.5</td>
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<td>Pecari</td>
<td>46.3</td>
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<td>Loirs</td>
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<td>Jaguaret</td>
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<td>Alco</td>
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<td>Lama</td>
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<td>Hampster</td>
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<td>Zisel</td>
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<td>Leming</td>
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<td>Souris. Mouse</td>
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<td>Sloth. Unau</td>
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<td></td>
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<td>Saricovienne</td>
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<td></td>
<td></td>
<td></td>
<td>Kincajou</td>
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<td>Tatou Kabassou</td>
<td>21.8</td>
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<td></td>
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<td>Urson. Urchin</td>
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<td></td>
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<td>Raccoon. Raton</td>
<td>16.5</td>
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<td></td>
<td></td>
<td></td>
<td>Coati</td>
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<tr>
<td>Europe</td>
<td>America</td>
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<tr>
<td>Coendou</td>
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<td>16.3</td>
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<tr>
<td>Sapajou Ouarini</td>
<td>Sapajou Coaita</td>
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<tr>
<td>Tatou Encubert</td>
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<tr>
<td>Little Coendou</td>
<td>Little Coendou</td>
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<tr>
<td>Opossum. Sarigue</td>
<td>Opossum. Sarigue</td>
<td>[86]</td>
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<tr>
<td>Tapeti</td>
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<td>Margay</td>
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<td>Crabier</td>
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<td>Agouti</td>
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<td>4.2</td>
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<tr>
<td>Sapajou Sai</td>
<td>Sapajou Sai</td>
<td>3.5</td>
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</tr>
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<td>Tatou Cirquinçon</td>
<td>Tatou Tatouate</td>
<td>3.3</td>
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<td>Tatou Tatouate</td>
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</tr>
<tr>
<td>Mouffette Squash</td>
<td>Mouffette Squash</td>
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<tr>
<td>Mouffette Chinche</td>
<td>Mouffette Chinche</td>
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<tr>
<td>Mouffette Conepate</td>
<td>Mouffette Conepate</td>
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<td>Scunk</td>
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<td>Mouffette. Zorilla</td>
<td>Mouffette. Zorilla</td>
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<td>Aperea</td>
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<td>Akouchi</td>
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<tr>
<td>Ondatra. Muskrat</td>
<td></td>
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</tr>
<tr>
<td>Piliro</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Great gray squirrel</td>
<td>Great gray squirrel</td>
<td>†2.7</td>
<td></td>
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</tr>
<tr>
<td>Fox squirrel of Virginia</td>
<td>Fox squirrel of Virginia</td>
<td>†2.625</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surikate</td>
<td></td>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mink</td>
<td></td>
<td>†2.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sapajou. Sajou</td>
<td>Sapajou. Sajou</td>
<td>1.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indian pig. Cochin d’Inde.</td>
<td>Indian pig. Cochin d’Inde.</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sapajou Saïmiri</td>
<td>Sapajou Saïmiri</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phalanger</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
### III. DOMESTICATED IN BOTH

**Europe. lb. America. lb.**

<table>
<thead>
<tr>
<th>Animal</th>
<th>Europe</th>
<th>America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow</td>
<td>763</td>
<td>*2500</td>
</tr>
<tr>
<td>Horse</td>
<td></td>
<td>*1366</td>
</tr>
<tr>
<td>Ass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hog</td>
<td></td>
<td>*1200</td>
</tr>
<tr>
<td>Sheep</td>
<td></td>
<td>*125</td>
</tr>
<tr>
<td>Goat</td>
<td></td>
<td>*80</td>
</tr>
<tr>
<td>Dog</td>
<td>67.6</td>
<td></td>
</tr>
<tr>
<td>Cat</td>
<td>7.</td>
<td>[88]</td>
</tr>
</tbody>
</table>

I have not inserted in the first table the Phoca, nor leather-winged bat, because the one living half the year in the water, and the other being a winged animal, the individuals of each species may visit both continents.
Of the animals in the 1st table, Mons de Buffon himself informs us [XXVII. 130, XXX. 213.] that the beaver, the otter, and shrew mouse, though of the same species, are larger in America than Europe. This should therefore have corrected the generality of his expressions XVIII. 145, and elsewhere, that the animals common to the two countries, are considerably less in America than in Europe, ‘et cela sans aucune exception.’ He tells us too, [Quadrup. VIII. 334, edn. Paris 1777] that on examining a bear from America, he remarked no difference, “dans la forme de cet ours d’Amerique comparé a celui d’Europe,” but adds from Bartram’s journal, that an American bear weighed 400 lb. English, equal to 367 lb, French; whereas we find the European bear examined by Mons. Daubenton, [XVII. 82.] weighed but 141 lb. French. That1 the palmated Elk is larger in America than in Europe, we are informed by Kalm.a Naturalist, who visited the former by public appointment, for the express purpose of examining the subjects of natural history. In this fact Pennant concurs with him. [Barrington’s Miscellanies.] The same Kalm tells us1 that the Black Moose, or Renne of America, is as high as a tall horse; and Catesby, that it is about the bigness of a middle sized ox. The same account of their size has been given me by many who have seen them. But Mons. Daubenton says3 that the Renne of Europe is about the size of a Red-Deer. The Wesel is larger in America than in Europe, as may be seen by comparing its dimensions as reported by Mons. Daubenton4 and Kalm. The latter tells us5 that the Lynx badger, Red fox, and Flying squirrel, are the same in America as in Europe; by which expression I understand, they are the same in all material circumstances, in size as well as others: for if they were smaller, they would differ from the European, Our gray fox is, by Catesby’s account, little different in size and shape from the European fox. I presume he means the red fox of Europe, as does Kalm, where he says that in size ‘they do not quite come up to our foxes.’ For, proceeding next to the red fox of America, he says, ‘they are entirely the same with the European sort.’ Which shows he had in view one European sort only, which was the red. So that the result of their testimony is, that the American gray fox is somewhat less than the European red; which is equally true of the gray fox of Europe, as may be seen by comparing the measures of the Count de Buffon and Mons. Daubenton.1 The white bear of America is as large as that of Europe. The bones of the Mammoth which has been found in America, are as large as those found in the old world. It may be asked, why I insert the Mammoth, as if it still existed? I ask in return, why I should omit it, as if it did not exist? Such is the economy of nature, that no instance can be produced, of her having permitted any one race of her animals to become extinct; of her having formed any link in her great work so weak as to be broken. To add to this, the traditinary testimony of the Indians, that this animal still exists in the northern and western parts of America, would be adding the light of a taper to that of the meridian sun. Those parts still remain in their aboriginal state, unexplored and undisturbed by us, or by others for us. He may as well exist there now, as he did formerly where we find his bones. If he be a carnivorous animal, as some Anatomists have conjectured, and the Indians affirm, his early retirement may be accounted for from the general destruction of the wild game by the Indians, which commences in the first instance of their connection with us, for the purpose of purchasing matchcoats, hatchets, and firelocks, with their skins. There remain then the2 buffalo, red deer, fallow deer, wolf, roe, glutton, wild cat, monax, vison, hedgehog, marten, and water rat, of the comparative sizes of which we have not sufficient testimony. It does not appear that Messrs de Buffon and Daubenton have measured, weighed, or seen those of America. It is said of some of them, by some
travellers, that they are smaller than the European. But who were these travellers? Have they not been men of a very different description from those who have laid open to us the other three quarters of the world? Was natural history the object of their travels? Did they measure or weigh the animals they speak of? or did they not judge of them by sight, or perhaps even from report only? Were they acquainted with the animals of their own country, with which they undertake to compare them? Have they not been so ignorant as often to mistake the species?1 A true answer to these questions would probably lighten their authority, so as to render it insufficient for the foundation of an hypothesis. How unripe we yet are, for an accurate comparison of the animals of the two countries, will appear from the work of Mons. de Buffon. The ideas we should have formed of the sizes of some animals, from the information he had received at his first publications concerning them, are very different from what his subsequent communications give us. And indeed his candor in this can never be too much praised. One sentence of his book must do him immortal honour. ‘J’aime autant une personne qui me releve d’une erreur, qu’une autre qui m’apprend une verité, parce qu’en effet une erreur corrigée est une verité.’ He seems to have thought the cabiai he first examined wanted little of its full growth. ‘I1 n’étoit pas encore tout-a-fait adulte.’ Yet he weighed but 46½ lb., and he found afterwards, that these animals, when full grown, weigh 100 lb. He had supposed, from the examination of a jaguar said to be two years old, which weighed but 16 lb. 12 oz., that when he should have acquired his full growth, he would not be larger than a middle-sized dog. But a subsequent account raises his weight to 200 lb. Further information will, doubtless, produce further corrections. The wonder is, not that there is yet something in this great work to correct, but that there is so little. The result of this view then is, that of 26 quadrupeds common to both countries, 7 are said to be larger in America, 7 of equal size, and 12 not sufficiently examined. So that the first table impeaches the first member of the assertion, that of the animals common to both countries, the American are smallest, “et cela sans aucune exception.” It shows it is not just, in all the latitude in which its author has advanced it, and probably not to such a degree as to found a distinction between the two countries.

Proceeding to the second table, which arranges the animals found in one of the two countries only, Mons. de Buffon observes, that the tapir, the elephant of America, is but of the size of a small cow. To preserve our comparison, I will add, that the wild boar, the elephant of Europe, is little more than half that size. I have made an elk with round or cylindrical horns an animal of America, and peculiar to it; because I have seen many of them myself, and more of their horns; and because I can say, from the best information, that, in Virginia, this kind of elk has abounded much, and still exists in smaller numbers; and I could never learn that the palmated kind had been seen here at all.1 I suppose this confined to the more northern latitudes.2 I have made our hare or rabbit peculiar, believing it to be different from both the European animals of those denominations, and calling it therefore by its Algonquin name, Whabus, to keep it distinct from these. Kalm is of the same opinion.1 I have enumerated the squirrels according to our own knowledge, derived from daily sight of them, because I am not able to reconcile with that the European appellations and descriptions. I have heard of other species, but they have never come within my own notice. These, I think, are the only instances in which I have departed from the authority of Mons. de Buffon in the construction of this table. I take him for my ground work, because I think him the best informed of any Naturalist who has ever written. The result is, that
there are 18 quadrupeds peculiar to Europe; more than four times as many, to wit. 74 peculiar to America; that the first of these 74 weighs more than the whole column of Europeans; and consequently this second table disproves the second member of the assertion, that the animals peculiar to the new world are on a smaller scale, so far as that assertion relied on European animals for support; and it is in full opposition to the theory which makes the animal volume to depend on the circumstances of heat and moisture.

The table comprehends those quadrupeds only which are domestic in both countries. That some of these, in some parts of America, have become less than their original stock, is doubtless true; and the reason is very obvious. In a thinly-peopled country, the spontaneous productions of the forests, and waste fields, are sufficient to support indifferently the domestic animals of the farmer, with a very little aid from him, in the severest and scarest season. He therefore finds it more convenient to receive them from the hand of nature in that indifferent state, than to keep up their size by a care and nourishment which would cost him much labour. If, on this low fare, these animals dwindle, it is no more than they do in those parts of Europe where the poverty of the soil, or the poverty of the owner, reduces them to the same scanty subsistence. It is the uniform effect of one and the same cause, whether acting on this or that side of the globe. It would be erring, therefore, against this rule of philosophy, which teaches us to ascribe like effects to like causes, should we impute this diminution of size in America to any imbecility or want of uniformity in the operations of nature. It may be affirmed with truth, that, in those countries, and with those individuals in America, where necessity or curiosity has produced equal attention, as in Europe, to the nourishment of animals, the horses, cattle, sheep, and hogs, of the one continent are as large as those of the other. There are particular instances, well attested, where individuals of this country have imported good breeders from England, and have improved their size by care in the course of some years. To make a fair comparison between the two countries, it will not answer to bring together animals of what might be deemed the middle or ordinary size of their species; because an error in judging of that middle or ordinary size, would vary the result of the comparison. Thus Monsieur Daubenton considers a horse of 4 feet five inches high and 400 lb. weight French, equal to 4 feet 8.6 inches and 436 lb. English, as a middle-sized horse. Such a one is deemed a small horse in America. The extremes must therefore be resorted to. The same anatomist dissected a horse of 5 feet 9 inches height, French measure, equal to 6 feet 1.7 English. This is near 6 inches higher than any horse I have seen: and could it be supposed that I had seen the largest horses in America, the conclusion would be, that ours have diminished, or that we have bred from a smaller stock. In Connecticut and Rhode Island, where the climate is favorable to the production of grass, bullocks have been slaughtered which weighed 2500, 2200, and 2100 lb. nett; and those of 1800 lbs. have been frequent. I have seen a hog weigh 1050 lb. after the blood, bowels, and hair had been taken from him. Before he was killed, an attempt was made to weigh him with a pair of steel-yards, graduated to 1200 lb. but he weighed more. Yet this hog was probably not within fifty generations of the European stock. I am well informed of another which weighed 1100 lb. gross. Asses have been still more neglected than any other domestic animal in America. They are neither fed or housed in the most rigorous season of the year. Yet they are larger than those measured by Mons. Daubenton of 3 feet 7¼ inches, 3 feet 4 inches, and 3 feet 2½ inches, the latter weighing only 215.8 lb. These sizes, I
suppose, have been produced by the same negligence in Europe, which has produced a like diminution here. Where care has been taken of them on that side of the water, they have been raised to a size bordering on that of the horse; not by the heat and dryness of the climate, but by good food and shelter. Goats have been also much [102] neglected in America. Yet they are very prolific here, bearing twice or three times a year, and from one to five kids at a birth. Mons. de Buffon has been sensible of a difference in this circumstance in favour of America.\textsuperscript{1} But what are their greatest weights, I cannot say. A large sheep here weighs 100 lb. I observe Mons. Daubenton calls a ram of 62 lb. one of the middle size.\textsuperscript{2} But to say what are the extremes of growth in these and the other domestic animals of America, would require information of which no one individual is possessed.\textsuperscript{3} The weights actually known and stated in the third table preceding will suffice to show, that we may conclude on probable grounds, that, with equal food and care, the climate of America will preserve the races of domestic animals as large as the European stock from which they are derived; and, consequently, that the third member of Mons. de Buffon’s assertion that the domestic animals are subject to degeneration from the climate of America, is as probably wrong as the first and second were certainly so.

That the last part of it is erroneous, which affirms that the species of American quadru-[103] peds are comparatively few, is evident from the tables taken together. By these it appears that there are an hundred species aboriginal in America. Mons. de Buffon supposes about double that number existing on the whole earth.\textsuperscript{1} Of these Europe, Asia, and Africa, furnish suppose 126; that is, the 26 common to Europe and America, and about 100 which are not in America at all. The American species, then, are to those of the rest of the earth, as 100 to 126, or 4 to 5. But the residue of the earth being double the extent of America, the exact proportion would have been but as 4 to 8.

Hitherto I have considered this hypothesis as applied to brute animals only, and not in its extension to the man of America, whether aboriginal or transplanted.\textsuperscript{2} It is the opinion of Mons. de Buffon that the former furnishes no exception to it.\textsuperscript{3}

‘Quoique le sauvage du nouveau monde soit à-peu-près de même stature que l’homme de notre monde, cela ne suffit pas pour qu’il puisse faire une exception au fait général du rapetissement de la nature vivante dans tout ce continent: le sauvage est foible & petit par les organes de la génération; il n’a ni poil, ni barbe, & [104] nulle ardeur pour sa femelle; quoique plus léger que l’Européen, parce qu’il a plus d’habitude à courir, il est cependant beaucoup moins fort de corps; il est aussi bien moins sensible, & cependant plus craintif et plus lâche; il n’a nulle vivacité, nulle activité dans l’âme; celle du corps est moins un exercice, un mouvement volontaire qu’une nécessité d’action causée par le besoin; ôtez lui la faim et la soif, vous détruirez en même temps le principe actif de tous ses mouvements; il demeurera stupidement en repos sur ses jambes ou couché pendant des jours entiers. Il ne faut pas aller chercher plus loin la cause de la vie dispersée des sauvages & de leur éloignement pour la société: la plus précieuse étincelle du feu de la nature leur a été refusée; ils manquent d’ardeur pour leur femelle, & par consequent d’amour pour leurs semblables; ne connoissant pas l’attachment le plus vif, le plus tendre de tous, leurs autres sentiments de ce genre, sont froids & languissans; ils aiment foiblement leurs
À leurs pères et leurs enfants; la société la plus intime de toutes, celle de la même famille n’a donc chez eux que de faibles liens; la société d’une famille à l’autre n’en a point du tout; dès lors nulle réunon, nulle république, nulle état social. La physique de l’amour fait chez eux le moral des mœurs; leur cœur est glacié, leur société froide & leur empire dur. Ils ne regardent leurs femmes comme des servantes de peine ou des bêtes de somme qu’ils chargent, sans ménagement, du fardeau de leur chasse & qu’ils forcent, sans pitié, sans reconnaissance, à des ouvrages qui souvent sont au dessus de leurs forces; ils n’ont que peu d’enfants; ils en ont peu de soin; tout se ressent de leur premier défaut; ils sont indifférents parce qu’ils sont peu puissans, & cette indifférence pour le sexe est la tâche originelle qui flétrit la nature, qui l’empêche de s’épanouir, & qui détruisant les germes de la vie, coupe en même temps la racine de la société. L’homme ne fait donc point d’exception ici. La nature en lui refusant les puissances de l’amour l’a plus maltraité et plus rapetissé qu’aucun des animaux.’

An afflicting picture, indeed, which for the honor of human nature, I am glad to believe has no original. Of the Indian of South America I know nothing; for I would not honor with the appellation of knowledge, what I derive from the fables published of them. These I believe [106] to be just as true as the fables of Æsop. This belief is founded on what I have seen of man, white, red, and black, and what has been written of him by authors, enlightened themselves, and writing among an enlightened people. The Indian of North America being more within our reach, I can speak of him somewhat from my own knowledge, but more from the information of others better acquainted with him, and on whose truth and judgment I can rely. From these sources I am able to say, in contradiction to this representation,1 that he is neither more defective in ardor, nor more impotent with his female, than the white reduced to the same diet and exercise; that he is brave, when an enterprise depends on bravery;2 education with him making the point of honor consist in the destruction of an enemy by stratagem, and in the preservation of his own person free from injury; or, perhaps, this is nature, while it is education which teaches us to honor force more than finesse; that he will defend himself against a host of enemies, always choosing to be killed, rather than to surrender, though it [108] be to the whites, who he knows will treat him well; that in other situations, also, he meets death with more deliberation, and endures tortures with a firmness unknown almost to religious enthusiasm with us; that he is affectionate to his children, careful of them, and indulgent in the extreme; that his affections comprehend his other connections, [109] weakening, as with us, from circle to circle, as they recede from the centre; that his friendships are strong and faithful to the utmost extremity; that his sensibility is keen, even the warriors weeping most bitterly on the loss of their children, though in general they endeavor to appear superior to human events; that his vivacity and activity [110] of mind is equal to ours in the same situation; hence his eagerness for hunting, and for games of chance. The women are submitted to unjust drudgery. This I believe is the case with every barbarous people. With such, force is law. The stronger sex therefore imposes on the weaker. It is civilization alone which replaces women in the enjoyment of their natural equality. That first teaches us to subdue the selfish passions, and to respect those rights in others which we value in ourselves. Were we in equal barbarism, our females would be equal drudges. The man with them is less strong than with us, but their woman stronger than ours; and both for the same obvious reason; because our man and their woman is habituated to labor, and formed by it. With both
races the sex which is indulged with ease is the least athletic. An Indian man is small in the hand and wrist, for the same reason for which a sailor is large and strong in the arms and shoulders, and a porter in the legs and thighs. They raise fewer children than we do. The causes of this are to be found, not in a difference of nature, but of circumstance. The women very frequently attending the men in [111] their parties of war and of hunting, child-bearing becomes extremely inconvenient to them. It is said, therefore, that they have learned the practice of procuring abortion by the use of some vegetable; and that it even extends to prevent conception for a considerable time after. During these parties they are exposed to numerous hazards, to excessive exertions, to the greatest extremities of hunger. Even at their homes the nation depends for food, through a certain part of every year, on the gleanings of the forest; that is, they experience a famine once in every year. With all animals, if the female be illly fed, or not fed at all, her young perish; and if both male and female be reduced to like want, generation becomes less active, less productive. To the obstacles, then, of want and hazard, which nature has opposed to the multiplication of wild animals, for the purpose of restraining their numbers within certain bounds, those of labour and of voluntary abortion are added with the Indian. No wonder, then, if they multiply less than we do. Where food is regularly supplied, a single farm will show more of cattle, than a whole country of forests can of buffalos. The [112] same Indian women, when married to white traders, who feed them and their children plentifully and regularly, who exempt them from excessive drudgery, who keep them stationary and unexposed to accident, produce and raise as many children as the white women. Instances are known, under these circumstances, of their rearing a dozen children. An inhuman practice once prevailed in this country, of making slaves of the Indians. It is a fact well known with us, that the Indian women so enslaved produced and raised as numerous families as either the whites or blacks among whom they lived. It has been said that Indians have less hair than the whites, except on the head. But this is a fact of which fair proof can scarcely be had. With them it is disgraceful to be hairy on the body. They say it likens them to hogs. They therefore pluck the hair as fast as it appears. But the traders who marry their women, and prevail on them to discontinue this practice, say, that nature is the same with them as with the whites. Nor, if the fact be true, is the consequence necessary which has been drawn from it. Negroes have notoriously less hair than the whites; yet they are more ardent. But if cold and moisture be the agents of nature for diminishing the races of animals, how comes she all at once to suspend their operation as to the physical man of the new world, whom the Count acknowledges to be ‘à peu près de même stature que l’homme de notre monde,’ and to let loose their influence on his mental faculties? How has this ‘combination of the elements and other physical causes, so contrary to the enlargement of animal nature in this new world, these obstacles to the development and formation of great germs,’ been arrested and suspended, so as to permit the human body to acquire its just dimensions, and by what inconceivable process has their action been directed on his mind alone? To judge of the truth of this, to form a just estimate of their genius and mental powers, more facts are wanting, and great allowance to be made for those circumstances of their situation which call for a display of particular talents only. This done, we shall probably find that they are formed in mind as well as body, on the same [114] module with the ‘Homo sapiens Europæus.’ The principles of their society forbidding all compulsion, they are to be led to duty and to enterprise by personal influence and persuasion. Hence eloquence in council, bravery and address in war, become the
foundations of all consequence with them. To these acquirements all their faculties are directed. Of their bravery and address in war we have multiplied proofs, because we have been the subjects on which they were exercised. Of their eminence in oratory we have fewer examples, because it is displayed chiefly in their own councils. Some, however, we have, of very superior lustre. I may challenge the whole orations of Demosthenes and Cicero, and of any more eminent orator, if Europe has furnished any more eminent, to produce a single passage, superior to the speech of Logan, a Mingo chief, to Lord Dunmore, when governor of this state. And as a testimony of their talents in this line, I beg leave to introduce it, first stating the incidents necessary for understanding it. In the [115] spring of the year 1774, a robbery and murder were committed on an inhabitant of the frontier of Virginia, by two Indians of the Shawanee tribe. The neighbouring whites, according to their custom, undertook to punish this outrage in a summary way. Col. Cresap, a man infamous for the many murders he had committed on those much injured people, collected a party and proceeded down the Kanawaway in quest of vengeance. Unfortunately a canoe of women and children, with one man only, was seen coming from the opposite shore unarmed, and unsuspecting an hostile attack from the whites. Cresap and his party concealed themselves on the bank of the river, and the moment the canoe reached the shore, singled out their objects, and at one fire, killed every person in it. This happened to be the family of Logan, who had long been distinguished as a friend of the whites. This unworthy return provoked his vengeance. He accordingly signalized himself in the war which ensued. In the autumn of the same year a decisive battle was fought at the mouth of the Great Kanawaway, between the collected forces of the Shawanese, Mingoes and Delawares, and [116] a detachment of the Virginia militia. The Indians were defeated and sued for peace. Logan, however, disdained to be seen among the suppliants. But lest the sincerity of a treaty should be distrusted, from which so distinguished a chief absented himself, he sent, by a messenger, the following speech, to be delivered to Lord Dunmore.

“I appeal to any white man to say, if ever he entered Logan’s cabin hungry, and he gave him not meat; if ever he came cold and naked, and he cloathed him not. During the course of the last long and bloody war Logan remained idle in his cabin an advocate for peace. Such was my love for the whites, that my countrymen pointed as they passed, and said, ‘Logan is the friend of white men.’ I had even thought to have lived with you, but for the injuries of one man. Colonel Cresap, the last spring, in cold blood, and unprovoked, murdered all the relations of Logan, not sparing even my women and children. There runs not a drop of my blood in the veins of any living creature. This called on me for revenge. I have sought it: I have killed many: I have fully glutted my vengeance: for my coun-[117] try I rejoice at the beams of peace. But do not harbour a thought that mine is the joy of fear. Logan never felt fear. He will not turn on his heel to save his life. Who is there to mourn for Logan?—Not one.”

Before we condemn the Indians of this continent as wanting genius, we must consider that letters have not yet been introduced among them. Were we to compare them in their present state with the Europeans North of the Alps, when the Roman arms and arts first crossed those mountains, the comparison would be unequal, because, at that time, those parts of Europe were swarming with numbers; because numbers produce emulation and multiply the chances of improvement,
and one improvement begets another. Yet I may safely ask, how many good poets, how many able mathematicians, how many great inventors in arts or sciences, had Europe, North of the Alps, then produced? And it was sixteen centuries after this before a Newton could be formed. I do not mean to deny that there are varieties in the race of man, distinguished by their powers both of body and mind. I believe there are, as I see to be the case in the races of other animals. I only mean to suggest a doubt, whether the bulk and faculties of animals depend on the side of the Atlantic on which their food happens to grow, or which furnishes the elements of which they are compounded? Whether nature has enlisted herself as a Cis- or Trans-Atlantic partisan? I am induced to suspect there has been more eloquence than sound reasoning displayed in support of this theory; that it is one of those cases where the judgment has been seduced by a glowing pen; and whilst I render every tribute of honor and esteem to the celebrated Zoologist, who has added, and is still adding, so many precious things to the treasures of science, I must doubt whether in this instance he has not cherished error also by lending her for a moment his vivid imagination and bewitching language. 1

So far the Count de Buffon has carried this new theory of the tendency of nature to belittle her productions on this side the Atlantic. Its application to the race of whites transplanted from Europe, remained for the Abbé Raynal. 1 “On doit etre etonné (he says) que l’Amerique n’ait pas encore produit un bon poëte, [119] un habile mathematicien, un homme de genie dans un seul art, ou seule science.” 7. Hist. Philos. pa. 92, edn. Maestricht, 1774. “America has not yet produced one good poet.” When we shall have existed as a people as long as the Greeks did before they produced a Homer, the Romans a Virgil, the French a Racine and Voltaire, the English a Shakespeare and Milton, should this reproach be still true, we will inquire from what unfriendly causes it has proceeded, that the other countries of Europe and quarters of the earth shall not have inscribed any name in the roll of poets. 1 But neither has America produced “one able mathematician, one man of genius in a single art or a single science.” In war we have produced a Washington, whose memory will be adored while liberty shall have votaries, whose name will triumph over time, and will in future ages assume its just station among the most celebrated worthies of the world, when that wretched philosophy shall be forgotten which would have arranged him among the degeneracies of nature. In Physics we have produced a Franklin, than whom no one of the present age has made more important discoveries, nor has enriched philosophy with more, or more ingenious solutions of the phænomena of nature. We have supposed Mr. Rittenhouse second to no astronomer living; that in genius he must be the first, because he is self taught. As an artist he has exhibited as great a proof of mechanical genius as the world has ever produced. He has not indeed made a world; but he has by imitation approached nearer its Maker than any man who has lived from the creation to this day. 1 As in philosophy and war, [120] so in government, in oratory, in painting, in the plastic art, we might show that America, though but a child of yesterday, has already given hopeful proofs of genius, as well as of the nobler kinds, which arouse the best feelings of man, which call him into action, which substantiate his freedom, and conduct him to happiness, as of the subordinate, which serve to amuse him only. We therefore suppose, that this reproach is as unjust as it is unkind; and that, of the geniuses which adorn the present age, America contributes its full share. For comparing it with those countries where genius is most cultivated, where are the most excellent models for art,
and scaffoldings for the attainment of science, as France and England for instance, we calculate thus. The United States contains three millions of inhabitants; France twenty millions; and the British islands ten. We produce a Washington, a Franklin, a Rittenhouse. France then should have half a dozen in each of these lines, and Great Britain half that number, equally eminent. It may be true that France has: we are but just becoming acquainted with her, and our acquaintance [122] so far gives us high ideas of the genius of her inhabitants. It would be injuring too many of them to name particularly a Voltaire, a Buffon, the constellation of Encyclopedists, the Abbé Raynal himself, &c. &c. We therefore have reason to believe she can produce her full quota of genius. The present war having so long cut off all communication with Great Britain, we are not able to make a fair estimate of the state of science in that country. The spirit in which she wages war, is the only sample before our eyes, and that does not seem the legitimate offspring either of science or of civilization. The sun of her glory is fast descending to the horizon. Her Philosophy has crossed the channel, her freedom the Atlantic, and herself seems passing to that awful dissolution whose issue is not given human foresight to scan.₁ [123]

Having given a sketch of our minerals, vegetables, and quadrupeds, and being led by a proud theory to make a comparison of the latter with those of Europe, and to ex- [124] tend it to the Man of America, both aboriginal and emigrant, I will proceed to the remaining articles comprehended under the present query.

Between ninety and an hundred of our birds have been described by Catesby. His drawings are better as to form and attitude than coloring, which is generally too high. They are the following: [125]

**BIRDS OF VIRGINIA**

<table>
<thead>
<tr>
<th>Linnæan Designation</th>
<th>Catesby’s Designation</th>
<th>Popular Name</th>
<th>Buffon oiseaux</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lanius tyrannus</td>
<td>Muscicapa coronâ</td>
<td>Tyrant. Field martin</td>
<td>1.55</td>
</tr>
<tr>
<td>Vultur aura</td>
<td>Buteo specie Gallo-</td>
<td>Turkey buzzard</td>
<td>1.246</td>
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<tr>
<td></td>
<td>pavonis</td>
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</table>

₁This column of references to Buffon was first given in the edition of 1787.

₁“1 Clavigero, 85.”—Footnote in edition of 1853.

₂“The Pheasant is rarely or not at all found beyond North Carolina. The Grouse is first seen in the upper parts of Maryland, in Pennsylvania, and in the country north of Ohio, and thence northwardly.—[Capt. Mer. Lewis.]”—Footnote in edition of 1853.

₃“Clavigero says that in Mexico ‘vi sono i rinomati virignoli,’—1., 88.”—Footnote in edition of 1853.

₁In the edition of 1787 is here inserted: “Motacilla regulus | Regulus cristatu 3.13 | Wren. 1058.”
<table>
<thead>
<tr>
<th><strong>Linnaean Designation.</strong></th>
<th><strong>Catesby’s Designation.</strong></th>
<th><strong>Popular Name.</strong></th>
<th><strong>Buffon1 oiseaux.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Falco leucocephalus</em></td>
<td><em>Aquila capite albo</em></td>
<td>Bald Eagle</td>
<td>1.138</td>
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<tr>
<td><em>Falco sparverius</em></td>
<td><em>Accipiter minor</em></td>
<td>Little hawk</td>
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<tr>
<td><em>Falco columbarious</em></td>
<td><em>Accipiter palumbarius</em></td>
<td>Pigeon hawk</td>
<td>1.3</td>
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<tr>
<td><em>Falco furcatus</em></td>
<td><em>Accipiter caudâ furcatâ</em></td>
<td>Forked tail hawk</td>
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<td><em>Strix asio</em></td>
<td><em>Noctua aurita minor</em></td>
<td>Fishing hawk</td>
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<tr>
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<td><em>Psittacus Caroliniensius</em></td>
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<tr>
<td><em>Corvus cristatus</em></td>
<td><em>Pica glandaria, caerulea, cristata</em></td>
<td>Blue-jay</td>
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<tr>
<td><em>Oriolus Baltimore</em></td>
<td><em>Icterus ex aureo nigroque varius</em></td>
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<td><em>Gracula quiscula</em></td>
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<td>Purple jackdaw</td>
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<tr>
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<td>Carolina cuckow</td>
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<td><em>Picus maximus rostro albo</em></td>
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<td><em>Picus pileatus</em></td>
<td><em>Picus niger maximus, capite rubro</em></td>
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<tr>
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<td><em>Picus ouratus</em></td>
<td><em>Picus major alis aureis</em></td>
<td>Gold-winged woodpecker. Yucker. [126]</td>
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<td><em>Picus ventre rubro</em></td>
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<td><em>Picus pubescens</em></td>
<td><em>Picus varius minimus</em></td>
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<td><em>Picus villosus</em></td>
<td><em>Picus medius quasi-villosus</em></td>
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<td><em>Sitta capite nigro</em></td>
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<td><strong>Catesby’s Designation</strong></td>
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<td>Chattering plover. Kildee</td>
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<td>Oyster-catcher</td>
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<td>Gallinula Americana</td>
<td>Soree. Ral-bird</td>
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<tr>
<td>Meleagris</td>
<td>Gallopava Sylvestris</td>
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<td></td>
</tr>
<tr>
<td>Gallopavo³</td>
<td></td>
<td>Wild Turkey</td>
<td>3.187.229</td>
</tr>
<tr>
<td>Tetrao Virginianus</td>
<td>Perdix Sylvestris</td>
<td>American partridge. American quail</td>
<td>4.237</td>
</tr>
<tr>
<td></td>
<td>Virginiana</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urgallus minor, or</td>
<td>Pheasant. Mountain partridge</td>
<td>3.409</td>
</tr>
<tr>
<td></td>
<td>kind of Lagopus²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columba passerina</td>
<td>Turtur minimus</td>
<td>Ground dove</td>
<td>4.404</td>
</tr>
<tr>
<td></td>
<td>guttatus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columba migratorio</td>
<td>Palumbus migratorius</td>
<td>Pigeon of passage. Wild pigeon</td>
<td>4.351</td>
</tr>
<tr>
<td>Columba Caroliniensis</td>
<td>Turtur Caroliniensis</td>
<td>Turtle. Turtle dove</td>
<td>4.401</td>
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<tr>
<td>Alauda alpestris</td>
<td>Alauda gutterte flavo</td>
<td>Lark. Sky lark</td>
<td>9.79</td>
</tr>
<tr>
<td>Alauda magna</td>
<td>Alauda magna</td>
<td>Field lark. Large lark</td>
<td>6.59</td>
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<tr>
<td></td>
<td>Sturnus niger allis</td>
<td>Red-wing. Starling. Marsh blackbird</td>
<td>5.293</td>
</tr>
<tr>
<td></td>
<td>superné rubentibus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turdus migratorius</td>
<td>Turdus pilaris</td>
<td>Fieldfare of Carolina. Robin redbreast</td>
<td>5.426</td>
</tr>
<tr>
<td></td>
<td>migratorius</td>
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<td>9.257</td>
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<tr>
<td>Turdus rufus</td>
<td>Turdus rufus</td>
<td>Fox-colored thrush. Thrush</td>
<td>5.449</td>
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<tr>
<td>Turdus polyglottos³</td>
<td>Turdus minor cinereo</td>
<td>Mocking bird [128]</td>
<td>5.451</td>
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<tr>
<td></td>
<td>albus non maculatus</td>
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<td></td>
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<tr>
<td></td>
<td>Turdus minimus</td>
<td>Little thrush</td>
<td>5.400</td>
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<tr>
<td>Ampelis garrulus, β</td>
<td>Garrulus Caroliniensis</td>
<td>Chatterer</td>
<td>6.162</td>
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<tr>
<td>Loxia Cardinalis</td>
<td>Coccothraustes rubra</td>
<td>Red bird. Virginia nightingale</td>
<td>6.185</td>
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<tr>
<td>Loxia Cærulea</td>
<td>Coccothraustes</td>
<td>Blue gross beak</td>
<td>8.125</td>
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<td>---------------</td>
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<td>Emberiza hyemalis</td>
<td>Passer nivalis</td>
<td>Snow bird</td>
<td>8.47</td>
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<td>Emberiza Oryzivora</td>
<td>Hortulanus Caroliniensis</td>
<td>Rice bird</td>
<td>8.49</td>
</tr>
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<td>Emberiza Ciris</td>
<td>Fringilla tricolor</td>
<td>Painted finch</td>
<td>7.247</td>
</tr>
<tr>
<td>Tanagra cyanea</td>
<td>Linaria caerulea</td>
<td>Blue linnet</td>
<td>7.122</td>
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<tr>
<td></td>
<td>Passerculus</td>
<td>Little Sparrow</td>
<td>7.120</td>
</tr>
<tr>
<td></td>
<td>Passer fuscus</td>
<td>Cowpen bird</td>
<td>7.196</td>
</tr>
<tr>
<td>Fringilla erythrophthalma</td>
<td>Passer niger oculis rubris</td>
<td>Towhe bird</td>
<td>7.201</td>
</tr>
<tr>
<td>Fringilla tristis</td>
<td>Carduelis Americanus</td>
<td>American goldfinch</td>
<td>7.297</td>
</tr>
<tr>
<td></td>
<td>Fringilla purpurea</td>
<td>Purple finch</td>
<td>8.129</td>
</tr>
<tr>
<td>Muscicapa crinita</td>
<td>Muscicapa cristata ventre luteo</td>
<td>Crested flycatcher</td>
<td>8.379</td>
</tr>
<tr>
<td>Muscicapa rubra</td>
<td>Muscicapa rubra</td>
<td>Summer red bird</td>
<td>8.410</td>
</tr>
<tr>
<td>Muscicapa ruticilla</td>
<td>Ruticilla Americana</td>
<td>Red start</td>
<td>8.349</td>
</tr>
<tr>
<td>Muscicapa Caroliniensis</td>
<td>Muscicapa vertice negro</td>
<td>Catbird</td>
<td>8.372</td>
</tr>
<tr>
<td></td>
<td>Muscicapa nigrescens</td>
<td>Black cap flycatcher</td>
<td>8.341</td>
</tr>
<tr>
<td></td>
<td>Muscicapa fusca</td>
<td>Little brown flycatcher</td>
<td>8.344</td>
</tr>
<tr>
<td></td>
<td>Muscicapa oculis rubris</td>
<td>Red-eyed flycatcher</td>
<td>8.337</td>
</tr>
<tr>
<td>Motacilla Sialis</td>
<td>Rubicula Americana caerulea</td>
<td>Blue bird [129]</td>
<td>9.308</td>
</tr>
<tr>
<td>Motacilla trochilus, β</td>
<td>Oenanthe Americana pectore luteo</td>
<td>Yellow breasted chat</td>
<td>6.96</td>
</tr>
<tr>
<td>Parus bicolor</td>
<td>Parus cristatus</td>
<td>Crested titmouse</td>
<td>10.181</td>
</tr>
<tr>
<td>Parus Americanus</td>
<td>Parus fringillaris</td>
<td>Finch creeper</td>
<td>9.442</td>
</tr>
<tr>
<td>Parus Virginianus</td>
<td>Parus uropygeo luteo</td>
<td>Yellow rump</td>
<td>10.184</td>
</tr>
<tr>
<td></td>
<td>Parus cucullo nigro</td>
<td>Hooded titmouse</td>
<td>10.183</td>
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<tr>
<td></td>
<td>Parus Americanus gutture luteo</td>
<td>Yellow throated creeper</td>
<td>10.183</td>
</tr>
<tr>
<td>Linnaean Designation</td>
<td>Catesby’s Designation</td>
<td>Popular Name</td>
<td>Buffon's designation</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------</td>
<td>--------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Hirundo Pelasgia</td>
<td>Parus Caroliniensis</td>
<td>Yellow titmouse</td>
<td>9.431</td>
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<tr>
<td></td>
<td>Hirundo cauda aculeata Americana</td>
<td>American swallow</td>
<td>12.478</td>
</tr>
<tr>
<td>Hirundo purpurea</td>
<td>Hirundo purpurea</td>
<td>Purple marten. House marten</td>
<td>12.445</td>
</tr>
<tr>
<td>Caprimulgus Europæus, α</td>
<td>Caprimulgus</td>
<td>Goatsucker. Great bat</td>
<td>12.243</td>
</tr>
<tr>
<td>Caprimulgus Europæus, β</td>
<td>Caprimulgus minor Americus</td>
<td>Whip poor Will [130]</td>
<td>12.246</td>
</tr>
</tbody>
</table>

Besides these we have,

The Royston crow. Corvus cornix.

Crane. Ardea Canadensis.

House swallow. Hirundo rustica.

Ground swallow. Hirundo riparia.

Greatest gray eagle.

Smaller turkey buzzard, with a feathered head.

Greatest owl, or night hawk.

Wet hawk, which feeds flying.

Raven.

Water Pelican of the Mississippi, whose pouch holds a peck.

Swan.

Loon.

Cormorant.

Duck and mallard.
The Widgeon.

Sheldrach, or Canvas back.

Black head.

Ballcoot.

Sprigtail.

Didapper, or dopchick.

Spoon-billed duck.

Water-witch.

Water-pheasant.

Mow-bird.

Blue Peter.

Water-Wagtail.

Yellow-legged Snipe.

Squatting Snipe.

Small Plover.

Whistling Plover.

Woodcock.

Red bird, with black head, wings and tail.

Wren.

And doubtless many others which have not yet been described and classed.

To this catalogue of our indigenous animals, I will add a short account of an anomaly of nature, taking place sometimes in the race of negroes brought from Africa, who, though black themselves, have, in rare instances, white children, called Albinos. I have known four of these
myself, and have faithful accounts of three others. The circumstances in which all the individuals agree are these. They are of a pallid cadaverous white, untinged with red, without any colored spots or seams; their hair of the same kind of white, short, coarse, and curled as is that of the negro; all of them well formed, strong, healthy, perfect in their senses, except that of sight, and born of parents who had no mixture of white blood. Three of these Abinos were sisters, having two other full sisters, who were black. The youngest of the three was killed by lightning, at twelve years of age. The eldest died at about 27 years of age, in child-bed, with her second child. The middle one is now alive, in health, and has issue, as the eldest had, by a black man, whose issue was black. They are uncommonly shrewd, quick in their apprehensions and in reply. Their eyes are in a perpetual tremulous vibration, very weak, and much affected by the sun; but they see better in the night than we do. They are of the property of Col. Skipwith, of Cumberland. The fourth is a negro woman, whose parents came from Guinea, and had three other children, who were of their own color. She is freckled, her eyesight so weak that she is obliged to wear a bonnet in the summer; but it is better in the night than day. She had an Albino child by a black man. It died at the age of a few weeks. These were the property of Col. Carter of Albemarle. A sixth instance is a woman of the property of a Mr. Butler, near Petersburg. She is stout and robust, has issue a daughter, jet black, by a black man. I am not informed as to her eyesight. The seventh instance is of a male belonging to a Mr. Lee of Cumberland. His eyes are tremulous and weak. He is tall of stature, and now advanced in years. He is the only male of the Albinos which have come within my information. Whatever be the cause of the disease in the skin, or in its coloring matter, which produces this change, it seems more incident to the female than male sex. To these I may add the mention of a negro man within my own knowledge, born black, of black parents; on whose chin, when a boy, a white spot appeared. This continued to increase till he became a man, by which time it had extended over his chin, lips, one cheek, the under jaw, and neck on that side. It is of the Albino white, without any mixture of red, and has for several years been stationary. He is robust and healthy, and the change of color was not accompanied with any sensible disease, either general or topical.

Of our fish and insects there has been nothing like a full description or collection. More of them are described in Catesby than in any other work. Many also are to be found in Sir Hans Sloane’s Jamaica, as being common to that and this country. The honey-bee is not a native of our continent. Marcgrave, indeed, mentions a species of honey-bee in Brazil. But this has no sting, and is therefore different from the one we have, which resembles perfectly that of Europe. The Indians concur with us in the tradition that it was brought from Europe; but when, and by whom, we know not. The bees have generally extended themselves into the country, a little in advance of the white settlers. The Indians, therefore, call them the white man’s fly, and consider their approach as indicating the approach of the settlements of the whites. A question here occurs, How far northwardly have these insects been found? That they are unknown in Lapland, I infer from Scheffer’s information, that the Lapland-ers eat the pine bark, prepared in a certain way, instead of those things sweetened with sugar. “Hoc comedunt pro rebus saccharo conditis.” Scheff. Lapp. chap. 18. Certainly if they had honey, it would be a better substitute for sugar than any preparation of the pine bark. Kalm tells us the honey-bee cannot live through the winter in Canada. They furnish then an additional remarkable fact first observed by the Count de Buffon,
and which has thrown such a blaze of light on the field of natural history, that no animals are found in both continents, but those which are able to bear the cold of those regions where they probably join.
QUERY VII
A notice of all what can increase the progress of Human Knowledge?

Under the latitude of this query, I will presume it not improper nor unacceptable to furnish some data for estimating the climate of Virginia. Journals of observations on the quantity of rain, and degree of heat, being lengthy, confused, and too minute to produce general and distinct ideas, I have taken five years’ observations, to wit, from 1772 to 1777, made in Williamsburg and its neighborhood, have reduced them to an average for every month in the year, and stated those averages in the following table, adding an Analytical view of the winds during the same period. [136]

<table>
<thead>
<tr>
<th>Fall of rain, etc., in inches.</th>
<th>Least and greatest daily heat, by Fahrenheit’s thermometer.</th>
<th>WINDS.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N. E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S.E.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S.W.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>W.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N.W.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Jan . .</td>
<td>3.192</td>
<td>38½ to 44</td>
</tr>
<tr>
<td>Feb . .</td>
<td>2.049</td>
<td>41 . . 41½</td>
</tr>
<tr>
<td>March</td>
<td>3.95</td>
<td>48 . . 54½</td>
</tr>
<tr>
<td>April</td>
<td>3.68</td>
<td>56 . . 62½</td>
</tr>
<tr>
<td>May . .</td>
<td>2.871</td>
<td>63 . . 70½</td>
</tr>
<tr>
<td>June . .</td>
<td>3.751</td>
<td>71½ . . 78¼</td>
</tr>
<tr>
<td>July . .</td>
<td>4.497</td>
<td>77 . . 82½</td>
</tr>
<tr>
<td>August</td>
<td>9.153</td>
<td>76¼ . . 81</td>
</tr>
<tr>
<td>Sept. .</td>
<td>4.761</td>
<td>69½ . . 74½</td>
</tr>
<tr>
<td>Oct. .</td>
<td>3.633</td>
<td>61¼ . . 66½</td>
</tr>
<tr>
<td>Nov . .</td>
<td>2.617</td>
<td>47 3/4 . . 53½</td>
</tr>
<tr>
<td>Dec . .</td>
<td>2.877</td>
<td>43 . . 48 3/4</td>
</tr>
<tr>
<td>Total .</td>
<td>47.038</td>
<td>8 A.M. to 4 P.M.</td>
</tr>
</tbody>
</table>
The rains of every month, (as of January, for instance,) through the whole period of years, were added separately, and an average drawn from them. The coolest and warmest point of the same day in each year of the period, were added separately, and an average of the greatest cold and greatest heat of that day was formed. From the averages of every day in the month, a general average was formed. The point from which the wind blew, was observed two or three times in every day. These observations in the month of January, for instance, through the whole period, amounted to 337. At 73 of these, the wind was from the North; 47 from the Northeast, &c. So that it will be easy to see in what proportion each wind usually prevails in each month; or, taking the whole year, the total of observations through the whole period having been 3,698, it will be observed that 611 of them were from the North, 558 from the North-east, &c.

Though by this table it appears we have on an average 47 inches of rain annually, which is considerably more than usually falls in Europe, yet from the information I have collected, I suppose we have a much greater proportion of sunshine here than there. Perhaps it will be found, there are twice as many cloudy days in the middle parts of Europe, as in the United States of America. I mention the middle parts of Europe, because my information does not extend to its northern or southern parts.

In an extensive country, it will of course be expected that the climate is not the same in all its parts. It is remarkable, that proceeding on the same parallel of latitude westwardly, the climate becomes colder in like manner as when you proceed northwardly. This continues to be the case till you attain the summit of the Alleghaney, which is the highest land between the ocean and the Missisipi. From thence, descending in the same latitude to the Missisipi, the change reverses; and, if we may believe travellers, it becomes warmer there than it is in the same latitude on the sea-side. Their testimony is strengthened by the vegetables and animals which subsist and multiply there naturally, and do not on the sea-coast. Thus Catalpas grow spontaneously on the Missisipi, as far as the latitude of 37°, and reeds as far as 38°. Perroquets even winter on the Sioto, in the 39th degree of latitude. In the summer of 1779, when the thermometer was at 90°. at Monticello, and 96°. at Williamsburg, it was 110° at Kaskaskia. Perhaps the mountain, which overhangs this village on the North side, may, by its reflection, have contributed somewhat to produce this heat. The difference of temperature of the air at the sea coast, or on the Chesapeak bay, and at the Alleghaney, has not been ascertained; but contemporary observations, made at Williamsburg, or in its neighborhood, and at Monticello, which is on the most eastern ridge of the mountains, called the South West, where they are intersected by the Rivanna, have furnished a ratio by which that difference may in some degree be conjectured. These observations make the difference between Williamsburg and the nearest mountains, at the position before mentioned, to be on an average 6⅛°. of Farenheit’s thermometer. Some allowance, however, is to be made for the difference of [140] latitude between these two places, the latter being 38°.8’.17″. which is 52’.22″. North of the former. By contemporary observations of between five and six weeks, the averaged and almost unvaried difference of the height of mercury in the barometer, at those two places, was .784 of an inch, the atmosphere at Monticello being so much the lightest, that is to say, about 1/37 of its whole weight. It should be observed, however, that the hill of Monticello is of 500 feet perpendicular height above the river which washes its base. This position being
nearly central between our northern and southern boundaries, and between the bay and Alleghaney, may be considered as furnishing the best average of the temperature of our climate. Williamsburgh is much too near the south-eastern corner to give a fair idea of our general temperature.

But a more remarkable difference is in the winds which prevail in the different parts of the country. The following table exhibits a comparative view of the winds prevailing at Williamsburg, and at Monticello. It is formed by reducing nine months observations at Monticello to four principal points, to wit, [141] the North-east, South-east, South-west, and North-west; these points being perpendicular to, or parallel with our coast, mountains and rivers; and by reducing in like manner, an equal number of observations, to wit, 421 from the preceding table of winds at Williamsburg, taking them proportionally from every point:

<table>
<thead>
<tr>
<th></th>
<th>N. E.</th>
<th>S. E.</th>
<th>S. W.</th>
<th>N. W.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Williamsburg</td>
<td>127</td>
<td>61</td>
<td>132</td>
<td>101</td>
<td>421</td>
</tr>
<tr>
<td>Monticello</td>
<td>32</td>
<td>91</td>
<td>126</td>
<td>172</td>
<td>421</td>
</tr>
</tbody>
</table>

By this it may be seen that the South-west wind prevails equally at both places; that the North-east is, next to this, the principal wind towards the sea coast, and the North-west is the predominant wind at the mountains. The difference between these two winds to sensation, and in fact, is very great. The North-east is loaded with vapour, insomuch, that the salt-makers have found that their crystals would not shoot while that blows; it brings a distressing chill, and is heavy and oppressive to the spirits. The North-west is dry, cooling, elastic, and animating. The Eastern and South-eastern breezes come on generally in the Afternoon. They have advanced into the country very sensibly within the memory of people now living. They formerly did not penetrate far above Williamsburg. They are now frequent at Richmond, and every now and then reach the mountains. They deposit most of their moisture, however, before they get that far. As the lands become more cleared, it is probable they will extend still further westward.

Going out into the open air, in the temperate, and warm months of the year, we often meet with bodies of warm air, which passing by us in two or three seconds, do not afford time to the most sensible thermometer to seize their temperature. Judging from my feelings only, I think they approach the ordinary heat of the human body. Some of them, perhaps, go a little beyond it. They are of about 20 to 30 feet diameter horizontally. Of their height we have no experience, but probably they are globular volumes wafted or rolled along with the wind. But whence taken, where found, or how generated? They are not to be ascribed to volcanos, because we have none. They do not happen in the winter when the farmers kindle large fires in clearing up their grounds. [143] They are not confined to the spring season, when we have fires which traverse whole countries, consuming the leaves which have fallen from the trees. And they are too frequent and general to be ascribed to accidental fires. I am persuaded their cause must be sought for in the atmosphere itself, to aid us in which I know but of these constant circumstances: a dry air; a temperature as warm, at least, as that of the spring or autumn; and a moderate current of
wind. They are most frequent about sun-set; rare in the middle parts of the day; and I do not recollect having ever met with them in the morning.

The variation in the weight of our atmosphere, as indicated by the barometer, is not equal to two inches of mercury. During twelve months’ observation at Williamsburg, the extremes were 29, and 30.86 inches, the difference being 1.86 of an inch; and in nine months, during which the height of the mercury was noted at Monticello, the extremes were 28.48 and 29.69 inches, the variation being 1.21 of an inch. A gentleman, who has observed his barometer many years, assures me it has never varied two inches. Cotemporary observations made at Monticello and Williamsburg, proved the variations in the weight of air to be simultaneous and corresponding in these two places.

Our changes from heat to cold, and cold to heat, are very sudden and great. The mercury in Fahrenheit’s thermometer has been known to descend from 92°. to 47°. in thirteen hours. It was taken for granted, that the preceding table of averaged heat will not give a false idea on this subject, as it proposes to state only the ordinary heat and cold of each month, and not those which are extraordinary. At Williamsburg, in August 1766, the mercury in Fahrenheit’s thermometer was at 98°. corresponding with 29½ of Reaumur. At the same place in January 1780, it was 6°. corresponding with 11½ below 0. of Reaumur. I believe these may be considered to be nearly the extremes of heat and cold in that part of the country. The latter may most certainly, as that time York river, at Yorktown, was frozen over, so that people walked across it; a circumstance which proves it to have been colder than the winter of 1740, 1741, usually called the cold winter, when York river did not freeze over at that place. In the same season of 1780, Chesapeak bay was solid, from its head to the mouth of the Patowmac. At Annapolis, where it is 5½ miles over between the nearest points of land, the ice was from five to seven inches thick quite across, so that loaded carriages went over on it. Those, our extremes of heat and cold, of 6°. and 98°. were indeed very distressing to us, and were thought to put the extent of the human constitution to considerable trial. Yet a Siberian would have considered them as scarcely a sensible variation. At Jenniseitz in that country, in latitude 58°.27′. we are told that the cold in 1735 sunk the mercury by Fahrenheit’s scale to 126°. below nothing; and the inhabitants of the same country use stove rooms two or three times a week, in which they stay two hours at a time, the atmosphere of which raises the mercury to 135°. above nothing. Late experiments shew that the human body will exist in rooms heated to 140°. of Reaumur, equal to 347°. of Fahrenheit’s, and 135°. above boiling water. The hottest point of the twenty-four hours is about four o’clock, P. M., and the dawn of day the coldest.

The access of frost in autumn, and its recess in the spring, do not seem to depend merely on the degree of cold; much less on the air’s being at the freezing point. White frosts are frequent when the thermometer is at 47°. have killed young plants of Indian corn at 48°. and have been known at 54°. Black frost, and even ice, have been produced at 38½°. which is 6½ degrees above the freezing point. That other circumstances must be combined with this cold to produce frost, is evident from this also, on the higher parts of mountains, where it is absolutely colder than in the
plains on which they stand, frosts do not appear so early by a considerable space of time in autumn, and go off sooner in the spring, than in the plains. I have known frosts so severe as to kill the hickory trees round about Monticello, and yet not injure the tender fruit blossoms then in bloom on the top and higher parts of the [147] mountain; and in the course of 40 years, during which it had been settled, there have been but two instances of a general loss of fruit on it; while in the circumjacent country, the fruit has escaped but twice in the last seven years. The plants of tobacco, which grow from the roots of those which have been cut off in the summer, are frequently green here at Christmas. This privilege against the frost is undoubtedly combined with the want of dew on the mountains. That the dew is very rare on their higher parts, I may say with certainty, from 12 years observations, having scarcely ever, during that time, seen an unequivocal proof of its existence on them at all during summer. Severe frosts in the depth of winter prove that the region of dews extends higher in that season than the tops of the mountains; but certainly, in the summer season, the vapors, by the time they attain that height, are become so attenuated as not to subside and form a dew when the sun retires.

The weavil has not yet ascended the high mountains.

A more satisfactory estimate of our climate to some, may perhaps be formed, by noting [148] the plants which grow here, subject, however, to be killed by our severest colds. These are the fig, pomegranate, artichoke, and European walnut. In mild winters, lettuce and endive require no shelter; but, generally, they need a slight covering. I do not know that the want of long moss, reed, myrtle, swamp laurel, holly, and cypress, in the upper country proceeds from a greater degree of cold, nor that they were ever killed with any degree of cold, nor that they were ever killed with any degree of cold in the lower country. The aloe lived in Williamsburg, in the open air, through the severe winter of 1779, 1780.

A change in our climate, however, is taking place very sensibly. Both heats and colds are become much more moderate within the memory even of the middle-aged. Snows are less frequent and less deep. They do not often lie, below the mountains, more than one, two, or three days, and very rarely a week. They are remembered to have been formerly frequent, deep, and of long continuance. The elderly inform me, the earth used to be covered with snow about three months in every year. The rivers, which then seldom failed to freeze over in the course of the winter, scarcely ever do so now. This [149] change has produced an unfortunate fluctuation between heat and cold, in the spring of the year, which is very fatal to fruits. From the year 1741 to 1769, an interval of twenty-eight years, there was no instance of fruit killed by the frost in the neighborhood of Monticello. An intense cold, produced by constant snows, kept the buds locked up till the sun could obtain, in the spring of the year, so fixed an ascendancy as to dissolve those snows, and protect the buds, during their development, from every danger of returning cold. The accumulated snows of the winter remaining to be dissolved all together in the spring, produced those overflows of our rivers, so frequent then, and so rare now.

Having had occasion to mention the particular situation of Monticello for other purposes, I will just take notice that its elevation affords an opportunity of seeing a phenomenon which is rare at
land, though frequent at sea. The seamen call it *looming*. Philosophy is as yet in the rear of the seamen, for so far from having accounted for it, she has not given it a name. Its principal effect is to make distant objects appear [150] larger, in opposition to the general law of vision, by which they are diminished. I knew an instance, at Yorktown, from whence the water prospect eastwardly is without termination, wherein a canoe with three men, at a great distance was taken for a ship with its three masts. I am little acquainted with the phenomenon as it shows itself at sea; but at Monticello it is familiar. There is a solitary mountain about 40 miles off in the South, whose natural shape, as presented to view there, is a regular cone; but by the effect of looming, it sometimes subsides almost totally in the horizon; sometimes it rises more acute and more elevated; sometimes it is hemispherical; and sometimes its sides are perpendicular, its top flat, and as broad as its base. In short, it assumes at times the most whimsical shapes, and all these perhaps successively in the same morning. The Blue ridge of mountains comes into view, in the North East at about 100 miles distance, and approaching in a direct line, passes by within 20 miles, and goes off to the South-West. This phenomenon begins to shew itself on these mountains, at about fifty miles distance, and continues beyond that as far as [151] they are seen. I remark no particular state, either in the weight, moisture, or heat of the atmosphere, necessary to produce this. The only constant circumstances are its appearance in the morning only, and on objects at least 40 or 50 miles distant. In this latter circumstance, if not in both, it differs from the looming on the water. Refraction will not account for the metamorphosis. That only changes the proportions of length and breadth, base and altitude, preserving the general outlines. Thus it may make a circle appear elliptical, raise or depress a cone, but by none of its laws, as yet developed, will it make a circle appear a square, or a cone a sphere.
QUERY VIII
The number of its inhabitants?

The following table shows the number of persons imported for the establishment of our colony in its infant state, and the census of inhabitants at different periods, extracted from our historians and public records, as particularly as I have had opportunities and leisure to examine them. Successive lines in the same year show successive periods of time in that year. I have stated the census in 2 different columns, the whole inhabitants having been sometimes numbered, and sometimes the tythes only. This term, with us, includes the free males above 16 years of age, and slaves above that age of both sexes. A further examination of our records would render this history of our population much more satisfactory and perfect, by furnishing a greater number of intermediate terms. Those, however, which are here stated will enable us to calculate, with a considerable degree of precision, the rate at which we have increased. During the infancy of the colony, while numbers were small, wars, importations, and other accidental circumstances render the progression fluctuating and irregular. By the year 1654, however, it becomes tolerably uniform, importations having in a great measure ceased from the dissolution of the company, and the inhabitants become too numerous to be sensibly affected by Indian wars. Beginning at that period, therefore, we find that from thence to the year 1772, our tythes had increased from 7209 to 153000. The whole term being of 118 years, yields a duplication once in every 27¼ years. The intermediate enumerations taken in 1700, 1748, and 1759, furnish proofs of the uniformity of this progression. Should this rate of increase continue, we shall have between six and seven millions of inhabitants within 95 years. If we suppose our country to be bounded, at some future day, by the meridian of the mouth of the Great Kanaway, (within which it has been before conjectured, are 64,491 square miles) there will then be 100 inhabitants for every square mile, which is nearly the state population of the British islands.

Here I will beg leave to propose a doubt. The present desire of America is to produce rapid population by as great importations of foreigners as possible. But is this founded in good policy? The advantage proposed is the multiplication of numbers. Now let us suppose (for example only) that, in this state, we could double our numbers in one year by the importation of foreigners; and this is a greater accession than the most sanguine advocate for immigration has a right to expect. Then I say, beginning with a double stock, we shall attain any given degree of population only 27 years, and 3 months sooner than if we proceed on our single stock. If we propose four millions and a half as a competent population for this state, we should be 54½ years attaining it, could we at once double our numbers; and 81¾ years, if we rely on natural propagation, as may be seen by the following table.

<table>
<thead>
<tr>
<th>Year</th>
<th>Proceeding on our present stock</th>
<th>Proceeding on a double stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>1781</td>
<td>567,614</td>
<td>1,135,228</td>
</tr>
<tr>
<td>1808¼</td>
<td>1,135,228</td>
<td>2,270,456</td>
</tr>
<tr>
<td>1835½</td>
<td>2,270,456</td>
<td>4,540,912</td>
</tr>
</tbody>
</table>
Proceeding on our present stock. Proceeding on a double stock.

1862¾ 4,540,912

In the first column are stated periods of 27¼ years; in the second are our numbers at each period, as they will be if we proceed on our actual stock; and in the third are what they would be, at the same periods, were we to set out from the double of our present stock. I have taken the term of four million and a half of inhabitants for example’s sake only. Yet I am persuaded it is a greater number than the country spoken of, considering how much inarable land it contains, can clothe and feed without a material change in the quality of their diet. But are there no inconveniences to be thrown into the scale against the advantage expected from a multiplication of numbers by the importation of foreigners? [156] It is for the happiness of those united in society to harmonize as much as possible in matters which they must of necessity transact together. Civil government being the sole object of forming societies, its administration must be conducted by common consent. Every species of government has its specific principles. Ours perhaps are more peculiar than those of any other in the universe. It is a composition of the freest principles of the English constitution, with others derived from natural right and natural reason. To these nothing can be more opposed than the maxims of absolute monarchies. Yet from such we are to expect the greatest number of emigrants. They will bring with them the principles of the governments they leave, imbibed in their early youth; or, if able to throw them off, it will be in exchange for an unbounded licentiousness, passing, as is usual, from one extreme to another. It would be a miracle were they to stop precisely at the point of temperate liberty. These principles, with their language, they will transmit to their children. In proportion to their numbers, they will share with us the legislation. They will infuse into it [157] their spirit, warp and bias its directions, and render it a heterogeneous, incoherent, distracted mass. I may appeal to experience, during the present contest, for a verification of these conjectures. But, if they be not certain in event; are they not possible, are they not probable? Is it not safer to wait with patience 27 years and three months longer, for the attainment of any degree of population desired or expected? May not our government be more homogeneous, more peaceable, more durable? Suppose 20 millions of republican Americans thrown all of a sudden into France, what would be the condition of that kingdom? If it would be more turbulent, less happy, less strong, we may believe that the addition of half a million of foreigners to our present numbers would produce a similar effect here. If they come of themselves they are entitled to all the rights of citizenship; but I doubt the expediency of inviting them by extraordinary encouragements. I mean not that these doubts should be extended to the importation of useful artificers. The policy of that measure depends on very different considerations. Spare no expence in obtaining them. They [158] will after a while go to the plough and the hoe; but, in the mean time, they will teach us something we do not know. It is not so in agriculture. The indifferent state of that among us does not proceed from a want of knowledge merely; it is from our having such quantities of land to waste as we please. In Europe the object is to make the most of their land, labor being abundant; here it is to make the most of our labor, land being abundant.
It will be proper to explain how the numbers for the year 1782 have been obtained; as it was not from a perfect census of the inhabitants. It will at the same time develope the proportion between the free inhabitants and slaves. The following return of taxable articles for that year was given in.

53,289 free males above twenty-one years of age.
211,698 slaves of all ages and sexes.
23,766 not distinguished in the returns, but said to be tytheable slaves.
195,439 horses.
609,734 cattle.
5,126 wheels of riding-carriages.
191 taverns. [159]

There were no returns from the 8 counties of Lincoln, Jefferson, Fayette, Monongalia, Yohogania, Ohio, Northampton, and York. To find the number of slaves which should have been returned instead of the 23,766 titheables, we must mention that some observations on a former census had given reason to believe that the numbers above and below 16 years of age were equal. The double of this number, therefore, to wit, 47,532 must be added to 211,698, which will give us 259,230 slaves of all ages and sexes. To find the number of free inhabitants we must repeat the observation that those above and below 16 are nearly equal. But as the number 53,289 omits the males below 16 and 21 we must supply them from conjecture. On a former experiment it had appeared that about one-third of our militia, that is, of the males between 16 and 50, were unmarried. Knowing how early marriage takes place here, we shall not be far wrong in supposing that the unmarried part of our militia are those between 16 and 21. If there be young men who do not marry till after 21, there are many who marry [160] before that age. But as men above 50 were not included in the militia, we will suppose the unmarried, or those between 16 and 21, to be one-fourth of the whole number above 16, then we have the following calculation:

53,289 free males above 21 years of age.
17,763 free males between 16 and 21.
17,052 free males under 16.
142,104 free males of all ages.
284,208 free inhabitants of all ages.
259,230 slaves of all ages.

543,438 inhabitants, exclusive of the 8 counties from which were no returns. In these eight counties in the years 1779 and 1780, were 3,161 militia. Say then,

3,161 free males above the age of 16.
3,161 free males under 16.
6,322 free females.

12,644 free inhabitants in these 8 counties. To find the number of slaves, say, as 284,208 to 259,230, so is 12,644 to 11,532. Adding the third of these numbers to the first, and the fourth to the second, we have, [161]

296,852 free inhabitants.
270,762 slaves.

567,614 inhabitants of every age, sex and condition. But 296,852, the number of free inhabitants, are to 270,762, the number of slaves, nearly as 11 to 10. Under the mild treatment our slaves experience, and their wholesome, though coarse food, this blot in our country increases as fast, or faster than the whites. During the regal government we had at one time obtained a law which imposed such a duty on the importation of slaves as amounted nearly to a prohibition, when one inconsiderate assembly, placed under a peculiarity of circumstance, repealed the law. This repeal met a joyful sanction from the then sovereign, and no devices, no expedients, which could ever be attempted by subsequent assemblies, and they seldom met without attempting them, could succeed in getting the royal assent to a renewal of the duty. In the very first session held under the republican government, the assembly passed a law for the perpetual prohibition of the importation of slaves. This [162] will in some measure stop the increase of this great political and moral evil, while the minds of our citizens may be ripening for a complete emancipation of human nature.1
QUERY IX
The number and condition of the militia and regular troops, and their pay?

The following is a state of the militia, taken from returns of 1780 and 1781, except in those counties marked with an asterisk, the returns from which are somewhat older. [162]

[164] Every able-bodied Freeman, between the ages of 16 and 50, is enrolled in the militia. Those of every county are formed into companies, and these again into one or more battalions, according to the numbers in the county. They are commanded by colonels, and other subordinate officers, as in the regular service. In every county is a county lieutenant, who commands the whole militia of his county, but ranks only as a colonel in the field. We have no general officers always existing. These are appointed occasionally, when an invasion or insurrection happens, and their commission determines with the occasion. The governor is head of the military, as well as civil power. The law requires every militiaman to provide himself with the arms usual in the regular service. But this injunction was always indifferently complied with, and the arms they had, have been so frequently called for to arm the regulars, that in the lower parts of the country they are entirely disarmed. In the middle country a fourth or fifth part of them may have such
firelocks as they had provided to destroy the noxious animals which infest their farms; and on the [165] Western side of the Blue ridge they are generally armed with rifles. The pay of our militia, as well as of our regulars, is that of the Continental regulars. The condition of our regulars, of whom we have none but Continentals, and part of a battalion of state troops, is so constantly on the change, that a state of it at this day would not be its state a month hence. It is much the same with the condition of the other Continental troops, which is well enough known.
QUERY X
The marine?

Before the present invasion of this state by the British under the command of General Phillips, we had three vessels of 16 guns, one of 14, five small gallies, and two or three armed boats. They were generally so illy manned as seldom to be in a condition for service. Since the perfect possession of our rivers assumed by the enemy, I believe we are left with a single armed boat only.1 [166]
QUERY XI
A description of the Indians established in that State?

When the first effectual settlement of our colony was made, which was in 1607, the country from the sea-coast to the mountains, and from the Patowmac to the most southern waters of James river, was occupied by upwards of forty different tribes of Indians. Of these the Powhatans, the Mannahoacs, and Monacans, were the most powerful. Those between the sea-coast and falls of the rivers, were in amity with one another, and attached to the Powhatans as their link of union. Those between the falls of the rivers and the mountains, were divided into two confederacies; the tribes inhabiting the head waters of Patowmac and Rappahannoc, being attached to the Mannahoacs; and those on the upper parts of James river to the Monacans. But the Monacans and their friends were in amity with the Mannahoacs and their friends, and waged joint and perpetual war against [167] the Powhatans. We are told that the Powhatans, Mannahoacs, and Monacans, spoke languages so radically different, that interpreters were necessary when they transacted business. Hence we may conjecture, that this was not the case between all the tribes, and, probably, that each spoke the language of the nation to which it was attached; which we know to have been the case in many particular instances. Very possibly there may have been anciently three different stocks, each of which multiplying in a long course of time, had separated into so many little societies,\(^1\) the principles of their government being so weak as to give this liberty of all its members.

The territories of the Powhatan confederacy south of the Patowmac, comprehended about 8000 square miles, 30 tribes, and 2400 warriors. Captain Smith tells us, that within 60 miles of James town were 5000 people, of whom 1500 were warriors. From this we find the proportion of their warriors to their whole inhabitants, was as 3 to 10. The Powhatan confederacy, then, would consist of about 8000 inhabitants, which was one for every square [168] mile; being about the twentieth part of our present population in the same territory, and the hundredth of that of the British islands.

Besides these were the Nottoways, living on Nottoway river, the Meherrins and Tuteloes on Meherrin river, who were connected with the Indians of Carolina, probably with the Chованocs. [169]

The preceding table contains a state of these several tribes, according to their confederacies and geographical situations, with their numbers when we first became acquainted with them, where these numbers are known. The numbers of some of them are again stated as they were in the year 1669, when an attempt was made by the assembly to enumerate them. Probably the enumeration is imperfect, and in some measure conjectural, and that a farther search into the records would furnish many more particulars. What would be the melancholy sequel of their history, may, however, be argued from the census of 1669; by which we discover that the tribes therein enumerated were, in the space of 62 years,
reduced to about one-third of their former numbers. Spirituous liquors, the small-pox, war, and an abridgement of territory to a people who lived principally on the spontaneous productions of nature, had committed terrible havoc among them, which generation, under the obstacles opposed to it among them, was not likely to make good. That the lands of this country were taken from them by conquest, is not so general a truth as is supposed. I find in our historians and records, repeated proofs of purchase, which cover a considerable part of the lower country; and many more would doubtless be found on further search. The upper country, we know, has been acquired altogether by purchases made in the most unexceptionable form.

Westward of all these tribes, beyond the mountains, and extending to the great lakes, were the Massawòmecs, a most powerful confederacy, who harrassed unremittingly the Powhatàns and Manahoàcs. These were probably the ancestors of tribes known at present by the name of the Six Nations.

Very little can now be discovered of the subsequent history of these tribes severally. The Chickahòminies removed about the year 1661, to Mattapony river. Their chief, with one from each of the Pamùnkies and Màttaponies, attended the treaty of Albany in 1685. This seems to have been the last chapter in their history. They retained, however, their separate name so late as
1705, and were at length blended with the Pamûnkies and Màttaponies, and exist at present only under their names. There remain of the Màttaponies three or four men only, and they [171] have more negro than Indian blood in them. They have lost their language, have reduced themselves, by voluntary sales, to about fifty acres of land, which lie on the river of their own name, and have from time to time, been joining the Pamûnkies, from whom they are distant but 10 miles. The Pamûnkies are reduced to about 10 or 12 men, tolerably pure from mixture with other colors. The older ones among them preserve their language in a small degree, which are the last vestiges on earth, as far as we know, of the Powhatan language. They have about 300 acres of very fertile land, on Pamunkey river, so encompassed by water that a gate shuts in the whole. Of the Nottoways, not a male is left. A few women constitute the remains of that tribe. They are seated on the Nottoway river, in Southampton country, on very fertile lands. At a very early period, certain lands were marked out and appropriated to these tribes, and were kept from encroachment by the authority of the laws. They have usually had trustees appointed, whose duty was to watch over their interests, and guard them from insult and injury. [172]

The Mònacans and their friends, better known latterly by the name of Tuscaròras, were probably connected with the Massawòmecs, or Five nations. For though we are1 told their languages were so different that the intervention of interpreters was necessary between them, yet do we also2 learn that the Erigas, a nation formerly inhabiting on the Ohio, were of the same original stock with the Five Nations, and that they partook also of the Tuscaròra language. Their dialects might, by long separation, have become so unlike as to be unintelligible to one another. We know that in 1712, the Five nations received the Tuscaròras into their confederacy, and made them the Sixth nation. They received the Mehèrrins and Tùteloes also into their protection: and it is most probable, that the remains of many other of the tribes, of whom we find no particular account, retired westwardly in like manner, and were incorporated with one or the other of the western tribes.₁ [173]

I know of no such thing existing as an Indian monument; for I would not honor with that name arrow points, stone hatchets, stone pipes, and half shapen images. Of labor on the large scale, I think there is no remain as respectable as would be a common ditch for the draining of lands; unless indeed it would be the Barrows, of which many are to be found all over this country. These are of different sizes, some of them constructed of earth, and some of loose stones. That they were repositories of the dead, has been obvious to all; but on what particular occasion constructed, was a matter of doubt. Some have thought they covered the bones of those who have fallen in battles fought on the spot of interment. Some ascribed them to the custom, said to prevail among the Indians, of collecting, at certain periods, the bones of all their dead, wheresoever deposited at the time of death. Others again supposed them the general sepulchres for towns, conjectured to have been on or near these grounds; and this opinion was supported by the quality of the lands in which they are found, (those constructed of earth being generally in the softest and most fertile meadow-grounds on [174] river sides,) and by a tradition, said to be handed down from the aboriginal Indians, that, when they settled in a town, the first person who died was placed erect, and earth put about him, so as to cover and support him; that when another died, a narrow passage was dug to the first, the second reclined against him, and the cover of
earth replaced, and so on. There being one of these in my neighborhood, I wished to satisfy myself whether any, and which of these opinions were just. For this purpose I determined to open and examine it thoroughly. It was situated on the low grounds of the Rivanna, about two miles above its principal fork, and opposite to some hills, on which had been an Indian town. It was of a spheroidal form, of about 40 feet diameter at the base, and had been of about twelve feet altitude, though now reduced by the plough to seven and a half, having been under cultivation about a dozen years. Before this it was covered with trees of twelve inches diameter, and round the base was an excavation of five feet depth and width, from whence the earth had been taken of which the hillock [175] was formed. I first dug superficially in several parts of it, and came to collections of human bones, at different depths, from six inches to three feet below the surface. These were lying in the utmost confusion, some vertical, some oblique, some horizontal, and directed to every point of the compass, entangled and held together in clusters by the earth. Bones of the most distant parts were found together, as, for instance, the small bones of the foot in the hollow of a scull; many sculls would sometimes be in contact, lying on the face, on the side, on the back, top or bottom, so as, on the whole, to give the idea of bones emptied promiscuously from a bag or a basket, and covered over with earth, without any attention to their order. The bones of which the greatest numbers remained, were sculls, jaw bones, teeth, the bones of the arms, thighs, legs, feet and hands. A few ribs remained, some vertebrae of the neck and spine, without their processes, and one instance only of the bone which serves [176] as a base to the vertebral column. The sculls were so tender, that they generally fell to pieces on being touched. The other bones were stronger. There were some teeth which were judged to be smaller than those of an adult; a scull, which on a slight view, appeared to be that of an infant, but it fell to pieces on being taken out, so as to prevent satisfactory examination; a rib, and a fragment of the under jaw of a person about half grown; another rib of an infant; and a part of the jaw of a child, which had not cut its teeth. This last furnishing the most decisive proof of the burial of children here, I was particular in my attention to it. It was part of the right half of the under jaw. The processes, by which it was articulated to the temporal bones, were entire, and the bone itself firm to where it had been broken off, which, as nearly as I could judge, was about the place of the eye tooth. Its upper edge, wherein would have been the sockets of the teeth, was perfectly smooth. Measuring it with that of an adult, by placing their hinder processes together, its broken end extended to the penultimate grinder of the adult. This bone was white, all the others [177] of a sand color. The bones of infants being soft, they probably decay sooner, which might be the cause so few were found here. I proceeded then to make a perpendicular cut through the body of the barrow, that I might examine its internal structure. This passed about three feet from its centre, was opened to the former surface of the earth, and was wide enough for a man to walk through and examine its sides. At the bottom, that is, on the level of the circumjacent plain, I found bones; above these a few stones, brought from a cliff a quarter of a mile off, and from the river one eighth of a mile off; then a large interval of earth, then a stratum of bones, and so on. At one end of the section were four strata of bones plainly distinguishable; at the other, three; the strata in one part not ranging with those in another. The bones nearest the surface were least decayed. No holes were discovered in any of them, as if made with bullets, arrows, or other weapons. I conjectured that in this barrow might have been a thousand skeletons. Every one will readily seize the circumstances above related, which militate against the opinion, that it covered
the bones [178] only of persons fallen in battle; and against the tradition also, which would make it the common sepulchre of a town, in which the bodies were placed upright, and touching each other. Appearances certainly indicate that it has derived both origin and growth from the customary collection of bones, and deposition of them together; that the first collection had been deposited on the common surface of the earth, a few stones put over it, and then a covering of earth, that the second had been laid on this, had covered more or less of it in proportion to the number of bones, and was then also covered with earth; and so on. The following are the particular circumstances which give it this aspect. 1. The number of bones. 2. Their confused position. 3. Their being in different strata. 4. The strata in one part having no correspondence with those in another. 5. The different states of decay in these strata, which seem to indicate a difference in the time of inhumation. 6. The existence of infant bones among them.

But on whatever occasion they may have been made, they are of considerable notoriety among the Indians; for a party passing, about [179] thirty years ago, through the part of the country where this barrow is, went through the woods directly to it, without any instructions or inquiry, and having staid about it for some time, with expressions which were construed to be those of sorrow, they returned to the high road, which they had left about half a dozen miles to pay this visit, and pursued their journey. There is another barrow much resembling this, in the low grounds of the South branch of Shenandoah, where it is crossed by the road leading from the Rock-fish gap to Staunton. Both of these have, within these dozen years, been cleared of their trees and put under cultivation, are much reduced in their height, and spread in width, by the plough, and will probably disappear in time. There is another on a hill in the Blue ridge of mountains, a few miles North of Wood’s gap, which is made up of small stones thrown together. This has been opened and found to contain human bones, as the others do. There are also many others in other parts of the country.1

Great question has arisen from whence came those aboriginals of America? Discoveries, long ago made, were sufficient to show that the passage from Europe to America was always practicable, even to the imperfect navigation of ancient times. In going from Norway to Iceland, from Iceland to Grœnland, from Grœnland to Labrador, the first traject is the widest; and this having been practised from the earliest times of which we have any account of that part of the earth, it is not difficult to suppose that the subsequent trajects may have been sometimes passed. Again, the late discoveries of Captain Cook, coasting from Kamschatka to California, have proved that if the two continents of Asia and America be separated at all, it is only by a narrow streight. So that from this side also, inhabitants may have passed into America; and the resemblance between the Indians of America and the eastern inhabitants of Asia, would induce us to conjecture, that the former are the descendants of the latter, or the latter of the former; excepting indeed the Esquimaux, who, from the same circumstance of resemblance, and from identity of language must be derived from the Grœnlanders, and these probably from some of the northern parts of the old continent. A knowledge of their several languages would be the most certain evidence of their derivation which could be produced. In fact, it is the best proof of the affinity of nations which ever can be referred to. How many ages have elapsed since the English, the Dutch, the Germans, the Swiss, the Norwegians, Danes and Swedes have separated
from their common stock? Yet how many more must elapse before the proofs of their common origin, which exists in their several languages, will disappear? It is to be lamented, then, very much to be lamented, that we have suffered so many of the Indian tribes already to extinguish, without our having previously collected and deposited in the records of literature, the general rudiments at least of the languages they spoke. Were vocabularies formed of all the languages spoken in North and South America, preserving their appellations of the most common objects in nature, of those which must be present to every nation barbarous or civilized, with the inflections
of their nouns and verbs, their principles of regimen and concord, and these deposited in all the
public libraries, it would furnish opportunities to those skilled in the languages of the old
world to compare them with these, now, or at any future time, and hence to construct the best
evidence of the derivation of this part of the human race.]

I will now proceed to state the nations and numbers of the Aborigines which still exist in a
respectable and independent form. And as their undefined boundaries would render it difficult to
specify those only which may be within any certain limits, and it may not be unacceptable to
present a more general view of them, I will reduce within the form of a Catalogue all those
within, and circumjacent to, the United States, whose names and numbers have come to my
notice. These are taken from four different lists, the first of which was given in the year 1759 to
General Stanwix by George Croghan, Deputy agent for Indian affairs under Sir William Johnson;
the second was drawn up by a French trader of considerable note, resident among the Indians
many years, and annexed to Colonel Bouquet’s printed account of his expedition in 1764. The
third was made out by Captain Hutchins, who visited most of the tribes, by order, for the
purpose of learning their numbers in 1768; and the fourth by John Dodge, an Indian trader, in
1779, except the numbers marked*, which are from other information. [184]
But apprehending these might be different appellations for some of the tribes already enumerated, I have not inserted them in the table, but state them separately as worthy of further inquiry. The variations observable in numbering the same tribe may sometimes be ascribed to imperfect information, and sometimes to a greater or less comprehension of settlements under the same name. [191]
END OF VOLUME III


[2] The words in brackets are struck out with ink, in all the copies I have examined. And in Jefferson’s letter to Thomson of June 21, 1785, he mentions the copy of the Notes sent to Monroe, and adds: “Pray ask the favor of Colonel Monroe, in page 5, line 17, to strike out the words ‘above the mouth of the Appamattox,’ which makes nonsense of the passage; and I forgot to correct it before I had enclosed and sent off the copy to him.”


[2] In the edition of 1853 is here added: “It is said, however, that at a very moderate expense the whole current of the upper part of the Kanhaway may be turned into the South Fork of Roanoke, the Alleghaney, there subsiding, and the two rivers approaching so near, that a canal of nine miles long and of thirty feet depth, at the deepest part would draw the water of the Kanhaway into this branch of the Roanoke; this canal would be in Montgomery County, the court-house of which is on the top of the Alleghaney.”

[1] Besides the three channels of communication mentioned between the western waters and the Atlantic, there are two others to which the Pennsylvanians are turning their attention; one from Presque-isle, on Lake Erie, to Le Bœuf, down the Alleghany to Kiskiminitas, then up the Kiskiminitas, and from thence, by a small portage, to Juniata, which falls into the Susquehanna: the other from Lake Ontario to the East branch of the Delaware, and down that to Philadelphia. Both these are said to be very practicable; and, considering the enterprising temper of the Pennsylvanians and particularly of the merchants of Philadelphia, whose object is concentrated in promoting the commerce and trade of one city, it is not improbable but one or both of these communications will be opened and improved.—Charles Thomson, in appendix.

[1] The reflections I was led into on viewing this passage of the Potowmac thro’ the Blue ridge were, that this country must have suffered some violent convulsion, and that the face of it must have been changed from what it probably was some centuries ago; that the broken and ragged faces of the mountain on each side the river; the tremendous rocks, which are left with one end fixed in the precipice, and the other jutting out, and seemingly ready to fall for want of support, the bed of the river for several miles below obstructed, and filled with the loose stones carried from this mound; in short, everything on which you cast your eye evidently demonstrates a disruption and breach in the mountain, and that, before this happened, what is now a fruitful vale, was formerly a great lake or collection of water, which possibly might have here formed a mighty cascade, or had its vent to the ocean by the Susquehanna, where the Blue ridge seems to terminate. Besides this, there are other parts of this country which bear evident traces of a like convulsion. From the best accounts I have been able to obtain, the place where the Delaware now flows through the Kittatinny mountain, which is a continuation of what is called the North ridge, or mountain, was not its original course, but that it passed through what is now called “the Wind-
gap,” a place several miles to the westward, and about a hundred feet higher than the present bed of the river. This Wind-gap is about a mile broad, and the stones in it such as seem to have been washed for ages by water running over them. Should this have been the case, there must have been a large lake behind that mountain, and by some uncommon swell in the waters, or by some convulsion of nature, the river must have opened its way through a different part of the mountain, and meeting there with less obstruction, carried away with it the opposing mounds of earth, and deluged the country below with the immense collection of waters to which this new passage gave vent. There are still remaining, and daily discovered, innumerable instances of such a deluge on both sides of the river, after it passed the hills above the falls of Trenton, and reached the Champaign. On the New Jersey side, which is flatter than the Pennsylvania side, all the country below Croswick hills seems to have been overflowed to the distance of from ten to fifteen miles back from the river, and to have acquired a new soil by the earth and clay brought down and mixed with the native sand. The spot on which Philadelphia stands evidently appears to be made ground. The different strata through which they pass in digging to water, the acorns, leaves, and sometimes branches, which are found above twenty feet below the surface, all seem to demonstrate this. I am informed that at Yorktown in Virginia, in the bank of York river, there are different strata of shells and earth, one above another, which seem to point out that the country there has undergone several changes; that the sea has, for a succession of ages, occupied the place where dry land now appears; and that the ground has been suddenly raised at various periods. What a change would it make in the country below, should the mountains at Niagara, by any accident, be cleft asunder, and a passage suddenly opened to drain off the waters of Erie and the upper lakes! While ruminating on these subjects, I have often been hurried away by fancy, and led to imagine, that what is now the bay of Mexico, was once a champaign country; and that from the point or cape of Florida, there was a continued range of mountains through Cuba, Hispaniola, Porto Rico, Martinique, Guadalupe, Barbadoes, and Trinidad, till it reached the coast of America, and formed the shores which bounded the ocean, and guarded the country behind; that by some convulsion or shock of nature, the sea had broken through these mounds, and deluged that vast plain, till it reached the foot of the Andes; that being there heaped up by the trade winds, always blowing from one quarter, it had found its way back, as it continues to do, through the Gulf between Florida and Cuba, carrying with it the loam and sand it may have scooped from the country it had occupied, part of which it may have deposited on the shores of North America, and with part formed the banks of Newfoundland. But these are only the visions of fancy.”—Charles Thomson, in appendix.

In the edition of 1853 is added the following footnote: “Herodutus, l. 7, c. 129, after stating that Thessaly is a plain country surrounded by high mountains, from which there is no outlet but the fissure through which the Peneus flows, and that according to ancient tradition it had once been an entire lake, supposes that fissure to have been made by an earthquake rending the mountain asunder.”

[1] In the edition of 1853 are footnote references as follows: “1. Epoques, 434. Musschenbroek, § 2,312. 2. Epoques, 317.”
In the edition of 1853, the following addition is here inserted: “To what is here said on the height of mountains, subsequent information has enabled me to furnish some additions and corrections.

“General Williams, a nephew of Dr. Franklin, on a journey from Richmond by the warm and Red Springs to the Alleghaney, has estimated by barometrical observations the height of some of our ridges of mountains above the tide-water, as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Height (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Eastern base of the Blue Ridge subjacent to Rockfish Gap</td>
<td>100</td>
</tr>
<tr>
<td>Summit of the mountain adjacent to that Gap</td>
<td>1,822</td>
</tr>
<tr>
<td>The valley constituting the Eastern basis of the Warm Spring Mountain</td>
<td>943</td>
</tr>
<tr>
<td>Summit of the Warm Spring Mountain</td>
<td>2,247</td>
</tr>
<tr>
<td>The Western valley of the Warm Spring Mountain, being the Eastern base of</td>
<td>949</td>
</tr>
<tr>
<td>the Alleghaney,</td>
<td></td>
</tr>
<tr>
<td>Summit of the Alleghaney, 6 miles Southwest of the Red Springs</td>
<td>2,760</td>
</tr>
<tr>
<td>“In November, 1815, with a Ramsden’s theodolite of 3½ inches radius, with nonius divisions to 3’, and a base of 1¼ mile on the low grounds of Otter River, distant 4 miles from the summits of the two peaks of Otter, I measured geometrically their heights above the water of the river at its base, and found that of the sharp or South peak, That of the flat or North peak,</td>
<td>2,946½, 3,103½</td>
</tr>
</tbody>
</table>

“As we may with confidence say that the base of the peaks is at least as high above the tide-water at Richmond as that of the Blue Ridge at Rockfish Gap, (being 40 miles farther westward,) and their highest summit of course 3,203½ feet above that tide-water, it follows that the summit of the highest peak is 343½ feet higher than that of the Alleghaney, as measured by General Williams.

“The highest of the White Mountains in New Hampshire, by barometrical estimate made by Captain Partridge, was found to be 4,885 feet from its base, and the highest of the Catskill mountains in New York 3,105 feet.

“Two observations, with an excellent pocket sextant, gave a mean of 37° 28′ 50″ for the latitude of the sharp peak of Otter.

“Baron Humboldt states that in latitude 37° (which is nearly over medium parallel,) perpetual snow is no where known so low as 1,200 toises = 7,671 feet above the level of the sea, and in sesquialtoral ratio nearly to the highest peak of Otter.”

[1] In the edition of 1853 is a footnote reference to “2 Epoques, 91, 112.”
In edition of 1853 is the following footnote:

“Bouguer mentions a cascade of two or three hundred toises height of the Bogota, a considerable river passing Santa Fé. The cataract is vertical, and is about 15 or 16 leagues below Santa Fe.—Bouguer, xci. Buffon mentions one of 300 feet at Terni, in Italy. 1. Epoques, 470.”

Altered in edition of 1853 to “and flowing from that valley.”

In the edition of 1853 is a footnote reference, “See Musschenbroek, § 2, 604.”

Altered in edition of 1853 to read: “than the semi-axis which gives its height.”

In the edition of 1853, the text from this point to the end of the paragraph is altered to read: “and descending then to the valley below, the sensation becomes delightful in the extreme. It is impossible for the emotions arising from the sublime to be felt beyond what they are here: so beautiful an arch, so elevated, so light, and springing as it were up to heaven, the rapture of the spectator is really indescribable. The fissure continues deep and narrow, and following the margin of the stream upwards, about three-eighths of a mile, you arrive at a limestone cavern, less remarkable for the height and extent than those before described. Its entrance into the hill is but a few feet above the bed of the stream. This bridge is in the county of Rockbridge, to which it has given name, and affords a public and commodious passage over a valley, which cannot be crossed elsewhere for a considerable distance. The stream passing under it is called Cedar Creek. It is a water of James River, and sufficient in the dryest seasons to turn a grist mill, though its fountain is not more than two miles above.

“This description was written after a lapse of several years from the time of my visit to the bridge, and under an error of recollection which requires apology, for it is from the bridge itself that the mountains are visible both ways, and not from the bottom of the fissure, as my impression then was. The statement therefore in the former editions needs the corrections here given to it. August 16, 1817.”

Don Ulloa mentions a break, similar to this, in the province of Angaraez in South America. It is from sixteen to twenty-two feet wide, one hundred and eleven feet deep, and of 1.3 miles continuance, English measure. Its breadth at top is not sensibly greater than at bottom. But the following fact is remarkable, and will furnish some light for conjecturing the probable origin of our natural bridge. “Esta caxa, ó cause está cortada en péna viva con tanta precision, que las desigualdades del un lado entrantes, corresponden á las del otro lado salientes, como si aquella altura se hubiese abierto expresamente, con sus bueltas y tortuosidades, para darle transito á los aguas por entre los dos morallones que la forman; siendo tal su igualdad, que si llegasen á juntarse se endentarian uno con otro sin dextar hueco.” Not. Amer. ii. § 10. Don Ulloa inclines to the opinion that this channel has been effected by the wearing of the water which runs through it, rather than that the mountain should have been broken open by any convulsion of nature. But if it had been worn by the running of water, would not the rocks which form the sides, have been
worn plain? or if, meeting in some parts with veins of harder stone, the water had left prominences on the one side, would not the same cause have sometimes, or perhaps generally, occasioned prominences on the other side also? Yet Don Ulloa tells us, that on the other side there are always corresponding cavities, and that these tally with the prominences so perfectly, that, were the two sides to come together they would fit in all their indentures, without leaving any void. I think that this does not resemble the effect of running water, but looks rather as if the two sides had parted asunder. The sides of the break, over which is the Natural bridge of Virginia, consisting of a veiny rock which yields to time, the correspondence between the salient and re-entering inequalities, if it existed at all, has now disappeared. This break has the advantage of the one described by Don Ulloa in its finest circumstance; no portion in that instance having held together, during the separation of the other parts, so as to form a bridge over the Abyss.—T. J.


[1] In the edition of 1853, a paragraph is here inserted, as follows:

“Adjacent to the vein of lime stone first mentioned, or at least to some parts of it, is a vein of Slate of greater breadth than that of the lime stone, sometimes mixed with it. The neighborhood of these veins of lime stone, and slate, and of lime stone and schist, between the North Mountain and Blue Ridge, coincides with the following observations of Bouguer, while in Peru: Le marbre est tres commun sur le bord de plusieurs de ces rivières: on y voit aussi des rochers d’ardoise & j’ai souvent eu occasion d’y observer le grande affinité qu’il y a entre ces deux sortes de pierre. J’avois deja fait cette remarque dans la Cordeliere. Les rochers de marbre et d’ardoise s’y touchent souvent, et j’en ai vu qui etoit ardoise par une extremité et marbre parfait par l’autre. Toutes les fois qui qui’il survient un nouveau sur pierreux analogue à l’ardoise et en unit les feuilles, il rend tout le rocher plus compacte et plus dur; le rocher cesse d’etre de l’ardoise pour devenir du marbre. Une pierre également distribuée par feuilles qu’on nomme schite, est aussi sujette à cette transformation. Quelquefois ce ne sont pas simplement des feuilles qui se soudent entr’elles un quartier de cette pierre se joint comme au hazard avec au autre. Si le tout est ensuite exposé à l’action du gravier & des cailloux roulés par un eau courante, et qu’il receive, une sorte d’arrondissement qui le rende à peu près cylindrique, il prend toutes les apparences d’un tronc d’arbre; et il est meme quelquefois très difficile de ne s’y pas tromper. Je fus très faché de ne pouvoir porter avec moi une de ces especes de tronc que je trouvai dans une ravine entre Guanacas et la Plata, au pied d’une colline nommé la Subida del Frayle. C’etoit un morceau de marbre qui avoit 20 pouces de longueur sur 17 ou 18 de diametre; on distinguoit comme, les fibres du bois, la surface presente des noeuds de diverses formes; le conteur meme du tronc etoit également propre à en imposer. Il y avoit un enfoncement d’un coté qui formoit un angle rentrant, et une saillie du coté opposé. Je ne sçavois qu’en penser, de meme que les personnes qui m’accompagnoient. Je ne reussis enfin a me decider, qu’en jettant les yeux sur d’autres quartiers de schite que etoient auprés, qui commençoient à prendre les memes apparennces, mais qui n’etoient pas encore dans un etat à pouvoir jetter dans l’erreur, et au contraire m’eclairent sur la nature du morceau de marbre. On pretend qu’entre les differens bois c’est le gayac qui se
petrifie le plus aisement. On m’assuroit que je verrois audessou de Mompox une croix dont tout le haut de l’arbre etoit encore de ce bois pendent que le bas etoit reellement de la pierre à fusil. Plusieurs personnes m’affirmerent en avoir tire du feu. Lorsque je passai dans cet endroit on me confirma la meme chose; mais on m’ajouta qu’une crue extraordinaire avoit fait tomber la croix dans la riviere, il y avoit 6 à 7 ans. Page xciii.”

[1] In the edition of 1853 is a footnote, as below:

“On whose authority, it has been said? Bouguer, the best witness respecting the Andes, speaking of Peru, says: ‘On n’y distingue aucun vestige des grandes inondations qui ont laissé tant de marques dans toutes les autres regions. J’ai fait tout mon possible pour y decouvrir quelque coquille, mais toujours inutilement apparamment que les montagne du Perou sont trop hautes.’ Bouguer, xv. See 4 Clavigera, Div. 3, § 1. See 2 Epoques, 268. 1 Epoques, 415.”

[2] In the edition of 1853 is a footnote reference to “2 Epoques, 378.”

[1] 2. Buffon Epoques, 96.—T. J.

[2] In the edition of 1787 is here added:

“Or without supposing it a lake, admit such an extraordinary collection of the waters of the atmosphere, and an influx from the Atlantic ocean, forced by long-continued Western winds.”

[3] In the edition of 1853 this passage reads, “That lake or that sea.”

[4] In the edition of 1853 a footnote adds:

“Five deluges are enumerated by Xenophon, the author of the tract de Equivocis in these words: ‘Inundationes plures fuere. Prima novimemstris inundatio terrarum sub prisco Ogyge. Secunda niliaca menstrua, sub Ægyptiis Hercule et Prometheo. Bimestris autem, sub Ogyge Attico in Achaia. Trimetris Thessalica, sub Deucalione. Par Pharonica, sub Proteo Aegyptio in raptu Helenæ.’ ”

[1] The text from this point to the end of the paragraph Jefferson cancelled in 1786, printing two new leaves which he substituted by insertion in place of the pages 52–4 of the original, in some copies (cf. note, p. 339). This change was embodied in the edition of 1787. The new text was as follows:

“A second opinion has been entertained; which is that, in times anterior to the records either of history or tradition, the bed of the ocean the principal residence of the shelled tribe, has, by some great convulsion of nature, been heaved to the heights at which we now find shells & other remains of marine animals. The favourers of this opinion do well to suppose the great events on which it rests to have taken place beyond all the æras of history; for within these certainly, none
such are to be found; & we may venture to say further that no fact has taken place, either in our own days, or in the thousands of years recorded in history, which proves the existence of any natural agents, within or without the bowels of the earth, of force sufficient to heave, to the height of 15,000 feet, such masses as the Andes. The difference between the power necessary to produce such an effect, & that which shuffled together the different parts of Calabria in our days, is so immense, that, from the existence of the latter we are not authorized to infer that of the former.

“M. de Voltaire, has suggested a third solution of this difficulty (Quest. encycl. Coquilles) he cites an instance in Touraine, where, in the space of 80 years, a particular spot of earth had been twice metamorphosed in to soft stone, which had become hard when employed in building: in this stone, shells of various kinds were produced, discoverable at first only with the microscope, but afterwards growing with the stone. From this fact, I suppose, he would have us infer that besides the usual process for generating shells by the elaboration of earth and water in animal vessels, nature may have provided an equivalent operation, by passing the same materials through the pores of calcareous earths and stones: as we see calcareous drop stones generating every day by percolation of water through limestone, and new marble forming in the quarries from which the old has been taken out; and it might be asked whether it is more difficult for nature to shoot the calcareous juice into the form of a shell, than other juices into the forms of chrystals, plants, animals, according to the construction of the vessels through which they pass? There is a wonder somewhere. Is it greatest on this branch of the dilemma; on that which supposes the existence of a power of which we have no evidence in any other case; or on the first which requires us to believe the creation of a body of water, and it’s subsequent annihilation? The establishment of the instance, cited by M. de Voltaire, of the growth of shells unattached to animal bodies, would have been that of his theory. But he has not established it. He has not even left it on ground so respectable as to have rendered it an object of enquiry to the literati of his own country. Abandoning this fact therefore, the three hypotheses are equally unsatisfactory; & we must be contented to acknowledge that this great phenomenon is as yet unsolved. Ignorance is preferable to error: & he is less remote from the truth who believes nothing, than he who believes what is wrong.”

[1] Altered in edition of 1853 to: “a gaseous stream so strong as to give to the sand,” etc.


[1] In the edition of 1853 is here inserted: “This gaseous fluid is probably inflamable air, the hydrogene of the new chemistry, which we know will kindle on mixing with the oxygeneous portion of the atmospheric air, and the application of flame. It may be produced by the decomposition of water or of pyrites, within the body of the hill.”

[1] In the edition of 1853, a paragraph is here inserted, as follows:

“We are told that during a great storm on the 25th of December, 1798, the Syphon Fountain, near
the mouth of the North Holston, ceased and a spring broke out about 100 feet higher up the hill.” Syphon fountains have been explained by supposing the duct which leads from the reservoir to the surface of the earth to be in the form of a syphon, a, b, c, where it is evident that till the water rises in the reservoir to d, the level of the highest point of the syphon, it cannot flow through the duct, and it is known that when it once begins to flow it will draw off the water of the reservoir to the orifice a, of the syphon. If the duct be larger than the supply of the reservoir possibly the force of the waters and loosening of the earth by them, during the storm above mentioned, may have opened a more direct duct as from e to f, horizontally or declining, which issues higher up the hill than the one fed by the syphon. In that case it becomes a common spring. Should this duct be again closed or diminished by any new accident, and both springs be kept in action from the same reservoir.”

[1] “There is a plant or weed, called the Jamestown weed (Datura pericarpis erectis ovatis. Linn.) of a very similar quality. The late Dr. Bond informed me, that he had under his care a patient, a young girl, who had put the seeds of this plant into her eye, which dilated the pupil to such a degree, that she could see in the dark, but in the light was almost blind. The effect that the leaves had when eaten by a ship’s crew that arrived at Jamestown, are well known. (An instance of temporary imbecility produced by them is mentioned. Beverl. H. of Virg. b 2, r 4.)” —Charles Thomson, in appendix.

[1] In the edition of 1853 is added: “Azalea viscosa.”


Mayz a Indias, y porque este grano tan provechoso le llaman en Italia Grano de Turquía mejor sabre preguntárlo, que dezirlo. Porque en efecto en los antiquos no hallo rastro deste genero, aunque el Milio que Plinio escribe aver venido a Italia de la India diez años avia, quando escrivio, tiene alguna similitud con el Mayz, en lo que dize que es grano, y que nace en caña, y se cubrede hoja, y que tiene al remate comuncabellos, y el ser fertilissimo, todo lo qual no quadra con el Mijo, que comunmente entienden por Milio, en fin, reparto el Criador a todas partes su gobierne; a este orbe dio el triga que es el principal sustento de los hombres; a aquel de Indias dio el Mayz, que tras el trigo tiene el segundo lugar, para sustenta de hombres, y animales.’—Acosta 4, 16.”


[1] In the edition of 1853 “by the Indians” is inserted at this point.

[1] In the edition of 1853 is a footnote: “Clavigero says: ‘Non ni sovviene che appo qualche nazione Americana visia memoria o degli elefanti, o degli ippopotami, o d’altri quadrupedi di si fatta grandezza. Non so che fin ora, fra scavamenti fatta nella Nuova Spagna, siasi mai scoperto, un carcamo d’Ippopotamo, e quel ch’ è piu, ne anche un dente d’elefante.’”—125.”

[2] In the edition of 1853 is a footnote: “2 Epoques, 276, in Mexico; but 1, Epoques, 250, denies the fact as to S. America.”

[3] In the edition of 1853 is a footnote reference to: “22 Buffon; 2. Epoques, 230.”

[1] In the edition of 1853 is a footnote: “2. Epoques, 232. Buffon pronounces it is not the grinder either of the elephant or hippopotamus, ‘mas d’une espece la premier et la grande de tous les animaux terrestres, qui est perdue.’”


[2] In the edition of 1853 is a footnote reference to: “Xviii. 178: xxii. 121.”

[3] In the edition of 1853 is a footnote: “Qu? See 2. Epoques de Buffon, 231, 234.”

[4] In the edition of 1853 the words “in life” are here inserted.
In the edition of 1853 the following passage is here interpolated:

“M. de Buffon considers the existence of elephant bones in Northern regions, where the animal itself is no longer found, as one of the leading facts which support his theory, that the earth was once in a liquid state, rendered so by the action of fire, that the process of cooling began at its poles, and proceeded gradually towards the torrid zone, that with this progress the animals of warm temperature retired towards the equator, and that in the present state of that progress the globe remains of sufficient warmth, for the elephant for instance, in the tropical regions, only to which therefore they have retired, as their last asylum, and where they must become extinct when the degree of warmth shall be reduced below that adapted to their constitution. How does it happen then that no elephants exist at present in the tropical regions of America, to which those of the Ohio must have retired, according to this theory?”

In spite of the soundness of these arguments, Buffon did not yield to them. Jefferson wrote to Hogendorp, Oct. 13, 1785: “I have never yet seen Monsr. de Buffon. He has been in the country all the summer. I sent him a copy of the book, have only heard his sentiments on one particular of it, that of the identity of the Mammoth & Elephant. As to this he retains his opinion that they are the same.”

Buffon, xviii. 112., edn. Paris, 1764.—T. J.

In the edition of 1853 this note is elaborated to:

“Xviii. 100, 156. ‘La terre est demeurée froide, impuissante a produire les principes actifs, a developer les germes des plus grands quadrupedes, auxquels il faut, pour croitre et se multiplier, toute la chaleur, toute l’activité que le soleil peut donner a la terre, amoureuse.’—Xviii. 156. ‘L’ardeur des hommes et la grandeur des animaux dependent de la salubrité de la chaleur de l’air.’—Ib. 160.”

In the edition of 1853 is a footnote:

“ ‘Tout ce qu’il y a de colossal et de grand dans la nature, a eté formé dans les terres du Nord.’ 1. Epoques 255. ‘C’est dans les regions de notre Nord que la nature vivante s’est elevée a ses plus grandes dimensions.’—Ib. 263.”

In a letter to Chastellux, June 7, 1785, Jefferson further argues on this question as follows:

“I will beg leave to say here a few words on the general question of the degeneracy of animals in America. 1. As to the degeneracy of the man of Europe transplanted to America, it is no part of Mons. de Buffon’s system. He goes indeed within one step of it, but he stops there. The Abbé Raynal alone has taken that step. Your knowledge of America enables you to judge this question, to say whether the lower class of people in America, are less informed & less susceptible of information than the lower class in Europe; and whether those in America who have received
such an education as that country can give, are less improved by it than Europeans of the same
degree of education. 2. As to the Aboriginal man of America, I know of no respectable evidence
on which the opinion of his inferiority of genuis has been founded but that of Don Ulloa. As to
Robertson, he never was in America, he relates nothing on his own knowledge, he is a compiler
only of the relations of others, and a mere translator of the opinions of Mons. de Buffon. I should
as soon therefore add the translators of Robertson to the witnesses of this fact, as himself. Pauw,
the beginner of this charge was a compiler from the works of others; and of the most unlucky
description; for he seems to have read the writings of travellers only to collect and republish their
lies. It is really remarkable that in three volumes 12mo. of small print it is scarcely possible to
find one truth, and yet that the author should be able to produce authority for every fact he states,
as he says he can. Don Ulloa’s testimony is the most respectable. He wrote of what he saw, but
he saw the Indian of South America only, and that after he had passed through ten generations of
slavery. It is very unfair, from this sample, to judge of the natural genius of this race of men; and
after supposing that Don Ulloa had not sufficiently calculated the allowance which should be
made for this circumstance, we do him no injury in considering the picture he draws of the
present Indians of S. America as no picture of what their ancestors were 300 years ago. It is in N.
America we are to seek their original character. And I am safe in affirming that the proofs of
genius given by the Indians of N. America, place them on a level with whites in the same
uncultivated state. The North of Europe furnishes subjects enough for comparison with them, &
for a proof of their equality. I have seen some thousands myself, and conversed much with them,
and have found in them a male, sound understanding. I have had much information from men
who had lived among them and whose veracity and good sense were so far known to me as to
establish a reliance on their information. They have all agreed in bearing witness in favour of the
genius of this people. As to their bodily strength their manners rendering it disgraceful to labour,
those muscles employed in labour will be weaker with them than with the European labourer; but
those which are exerted in the chase, and those faculties which are employed in the tracing of an
enemy or a wild beast, in contriving ambuscades for him, and in carrying them through their
execution, are much stronger than with us, because they are more exercised. I believe the Indian
then to be in body & mind equal to the white man. I have supposed the black man, in his present
state, might not be so, but it would be hazardous to affirm that, equally cultivated for a few
generations, he would not become so. 3. As to the inferiority of the other animals of America,
without more facts I can add nothing to what I have said in my Notes. As to the theory of Mons.
de Buffon that heat is friendly & moisture adverse to the production of large animals, I am lately
furnished with a fact by Doctor Franklin which proves the air of London & of Paris to be more
humid than that of Philadelphia, and so creates a suspicion that the opinion of the superior
humidity of America may perhaps have been too hastily adopted. And supposing that fact
admitted, I think the physical reasonings urged to shew that in a moist country animals must be
small, and that in a hot one they must be large, are not built on the basis of experiment. These
questions however cannot be decided ultimately at this day. More facts must be collected, and
more time flow off, before the world will be ripe for decision. In the meantime doubt is
wisdom.”
It is said that this animal is seldom seen above thirty miles from shore, or beyond the 56th degree of latitude. The interjacent islands between Asia and America admit his passing from one continent to the other without exceeding these bounds. And in fact, travellers tell us that these islands are places of principal resort for them, and especially in the season of bringing forth their young.—T. J.

In the edition of 1853 this passage is altered to read:

“Kalm tells us that the moose, original, or palmated elk of America, is as high as a tall horse; and Catesby that it is about the bigness of a middle-sized ox. I have seen a skeleton 7 feet high, and from good information believe they are often considerably higher. The Elk of Europe is not two-thirds of his height.”

To this passage in the edition of 1853 is appended the following footnote: “This sentence in the first edition began as follows: ‘Kalm tells us that the Black Moose or Renne of America is as high as a tall horse,’ &c. The author corrected it as in the text, appending a marginal note in these words: ‘This is not correct. Kalm considers the Moose as the Elk, and not as the Renne. Musu is the Algonkin name of the Original, or Elk.’”—I. xxvii.”

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<td>[1]</td>
<td>I. 233, Lon. 1772.—T. J.</td>
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<td>Ib. 233.—T. J.</td>
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<td>XXIV. 162.—T. J.</td>
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<td>[8]</td>
<td>II. 220.—T. J.</td>
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<td>[10]</td>
<td>In the edition of 1853 is here inserted the word “Renne.”</td>
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In the edition of 1853 is a footnote: “Even Amer. Vesp. says he saw lions and wild bears in America.—Letters, page 77. He saw a serpent 8 braccie long, and as thick as his own waist.—Liii.”

Quad. IX. 158.—T. J.

XXV. 184.—T. J.

Quad. IX. 132.—T. J.

XIX. 2.—T. J.

Quad. IX. 41.—T. J.

In the edition of 1853 this end of the sentence reads: “the palmated kind is confined to the more Northern latitudes.”

The descriptions of Theodot, Denys and La Hontan, cited by Monsieur de Buffon, under the article Elan, authorize the supposition that the flat-horned elk is found in the northern parts of America. It has not however extended to our latitudes. On the other hand, I could never learn that the round-horned elk has been seen further north than the Hudson’s river. This agrees with the former elk in its general character, being, like that, when compared with a deer, very much larger, its ears longer, broader, and thicker in proportion, its hair much longer, neck and tail shorter, having a dewlap before the breast (caruncula gutturalis Linnaei) a white spot often, if not always, of a foot diameter, on the hinder part of the buttocks round the tail; its gait a trot, and attended with a rattling of the hoofs; but distinguished from that decisively by its horns, which are not palmated, but round and pointed. This is the animal described by Catesby as the Cervus major Americanus, the stag of America, le Cerf de l’Amerique. But it differs from the Cervus as totally as does the palmated elk from the dama. And in fact it seems to stand in the same relation to the palmated elk, as the red deer does to the fallow. It has abounded in Virginia, has been seen, within my knowledge, on the eastern side of the Blue Ridge since the year 1765, is now common beyond those mountains, has been often brought to us and tamed, and its horns are in the hands of many. I should designate it as the “Alces Americanus cornibus teretibus.” It were to be wished, that naturalists, who are acquainted with the renne and elk of Europe, and who may hereafter visit the northern parts of America, would examine well the animals called there by the names of gray and black moose, caribou, original and elk. Monsieur de Buffon has done what could be done from the materials in his hands, toward clearing up the confusion introduced by the loose application of these names among the animals they are meant to designate. He reduces the whole to the renne and flat-horned elk. From all the information I have been able to collect, I strongly suspect they will be found to cover three, if not four distinct species of animals. I have seen skins of a moose, and of the caribou; they differ more from each other, and from that of the round-horned elk, than I ever saw two skins differ which belonged to different individuals of any wild species. These differences are in the color, length, and coarseness of the hair, and in the
size, texture, and marks of the skin. Perhaps it will be found that there is, 1, the moose, black and
gray, the former being said to be the male, and the latter the female; 2, the caribou or renne; 3,
the flat-horned elk, or original; 4, the round-horned elk. Should this last, though possessing so
nearly the characters of the elk, be found to be the same with the Cerf d’Ardennes or Brandhitz
of Germany still there will remain the three species first enumerated.—T. J. [In the edition of
1853 this is followed by:] “See Catesby and Kalm—reason to believe that the moose is the
palmated elk or original.”

[1]Kalm ii. 340, i. 82.—T. J.

[1]The Tapir is the largest of the animals peculiar to America. I collect his weight thus!
Monsieur de Buffon says, XXIII. 274, that he is of the size of a Zebu, or a small cow. He gives
us the measures of a Zebu, ib. 94, as taken by himself, viz. five feet seven inches from the
muzzle to the root of the tail, and five feet one inch circumference behind the fore-legs. A bull,
measuring in the same way six feet nine inches and five feet two inches, weighed six hundred
pounds, VIII. 153. The Zebu then, and of course the Tapir, would weigh about five hundred
pounds. But one individual of every species of European peculiars would probably weigh less
than four hundred pounds. These are French measures and weights.—T. J.

[1]VII. 432.—T. J.

[1]VII. 474.—T. J.

[2]In Williamsburg, April. 1769.—T. J.

[3]VIII. 48, 55, 66.—T. J.

[1]XVIII. 96.—T. J.

[2]IX. 41.—T. J.

[3]In the edition of 1853 is a footnote: “Perros en la Espanola han crecido en numero y en
grandeza, desuerte, que plaga de aquella isla.—Acosta iv. 33.”

[1]XXX. 219.—T. J. In the edition of 1853 is a further reference to: “xviii, 121.”


[3]XVIII, 146.—T. J.

Notes On The State Of Virginia by Thomas Jefferson


[1 ] Sol Rodomonte sprezza di venire

Se non, dove la via meno è ficura.—Aristo, 14, 117.—T. J.

[2 ] In so judicious an author as Don Ulloa, and one to whom we are indebted for the most precise information we have of South America, I did not expect to find such assertions as the following: “Los Indios vencidos son los mas cobardes y pusilanimes que se pueden ver:—se hacen inocentes, se humillan hasta el desprecio, disculpan su inconsiderado arreo, y con las suplicas y los ruegos dán seguras pruebas de su pusilanimidad.—ú lo que resieren las historias de la Conquista, sobre sus grandes acciones, es en un sendito figurado, ú el caracter de estas gentes no es ahora segun era entonces; pero lo que no tiene duda es, que las Naciones de la parte Septentrional subsisten en la misma libertad que siempre han tenido, sin haber sido sojuzgados por algun Principe extraño, y que viven segun su régimen y costumbres de toda la vida, sin que haya habido motivo para que muden de caracter; y en estos se vé lo mismo, que sucede en los del Peru, y de toda la América Meridional, reducidos, y que nunca lo han estado.” Noticias Americanas, Entretenimiento, xviii. § 1. Don Ulloa here admits, that the authors who have described the Indians of South America, before they were enslaved, had represented them as brave people, and therefore seems to have suspected that the cowardice which he had observed in those of the present race might be the effect of subjugation. But, supposing the Indians of North America to be cowards also, he concludes the ancestors of those of South America to have been so too, and, therefore, that those authors have given fictions for truth. He was probably not acquainted himself with the Indians of North America, and had formed his opinion from hearsay. Great numbers of French, of English, and of Americans, are perfectly acquainted with these people. Had he had an opportunity of inquiring of any of these, they would have told him, that there never was an instance known of an Indian begging his life when in the power of his enemies; on the contrary, that he courts death by every possible insult and provocation. His reasoning, then, would have been reversed thus: “Since the present Indian of North America is brave, and authors tell us that the ancestors of those of South America were brave also, it must follow that the cowardice of their descendents is the effect of subjugation and ill treatment.” For he observes, ib. § 27, that “los obrages los aniquillan por la inhumanidad con que se les trata.”—T. J.

[1 ] A remarkable instance of this appeared in the case of the late Colonel Byrd, who was sent to the Cherokee nation to transact some business with them. It happened that some of our disorderly people had just killed one or two of that nation. It was therefore proposed in the council of the Cherokees that Colonel Byrd should be put to death, in revenge for the loss of their countrymen. Among them was a chief named Silòuee, who, on some former occasion, had contracted an acquaintance and friendship with Colonel Byrd. He came to him every night in his tent, and told him not to be afraid, they should not kill him. After many days’ deliberation, however, the determination was, contrary to Silòuee’s expectation, that Byrd should be put to death, and some
warriors were dispatched as executioners. Silóuee attended them, and when they entered the tent, he threw himself between them and Byrd, and said to the warriors, “This man is my friend; before you get at him, you must kill me.” On which they returned, and the council respected the principle so much as to recede from their determination.—T. J.

[1] In the edition of 1853 is a reference to: “‘Vivono cento cinquanta anni.’—Amer. Vesp., iii. Amer. Vesp., 13.”

[1] In the edition of 1853 is a footnote as follows: “Amer. Vesp., 13. ‘Sono donne molto generative,’ &c.”

[2] In the edition of 1853 an addition is here made to the text, as follows: “This practice commenced with the Spaniards with the first discovery of America.—[See Herrera, Amer. Vesp.]”


[1] xviii., 146.—T. J.

[2] Linn. Syst. Definition of a Man.—T. J.

[1] The accuracy of this narrative was challenged by Luther Martin, a son-in-law of Cresap, in a Baltimore paper, March, 29, 1797. Upon Jefferson’s attention being called to this he wrote to Governor John Henry of Maryland, as follows:

Philadelphia, December 31, 1797.

“Dear Sir,—Mr. Tazewell has communicated to me the inquiries you have been so kind as to make, relative to a passage in the Notes on Virginia, which has lately excited some newspaper publications. I feel, with great sensibility, the interest you take in this business, and with pleasure, go into explanations with one whose objects I know to be truth and justice alone. Had Mr. Martin thought proper to suggest to me, that doubts might be entertained of the transaction respecting Logan, as stated in the Notes on Virginia, and to inquire on what grounds that statement was founded, I should have felt myself obliged by the inquiry; have informed him candidly of the grounds, and cordially have co-operated in every means of investigating the fact, and correcting whatsoever in it should be found to have been erroneous. But he chose to step at once into the newspapers, and in his publications there and the letters he wrote to me, adopted a style which forbade the respect of an answer. Sensible, however, that no act of his could absolve me from the justice due to others, as soon as I found that the story of Logan could be doubted, I determined to inquire into it as accurately as the testimony remaining, after the lapse of twenty odd years, would permit, and that the result should be made known, either in the first new edition which should be printed of the Notes on Virginia, or by publishing an appendix. I thought that so far as that work had contributed to impeach the memory of Cresap, by handing on an erroneous
charge it was proper it should be made the vehicle of retribution. Not that I was at all the author of the injury; I had only concurred, with thousands and thousands of others in believing a transaction on authority which merited respect. For the story of Logan is only repeated in the *Notes on Virginia*, precisely as it had been current for more than a dozen years before they were published. When Lord Dunmore returned from the expedition against the Indians, in 1774, he and his officers brought the speech of Logan, and related the circumstances of it. These were so affecting, and the speech itself so fine a morsel of eloquence, that it became the theme of every conversation, in Williamsburg particularly, and generally, indeed, wheresoever any of the officers resided or resorted. I learned it in Williamsburg, I believe at Lord Dunmore’s; and I find in my pocketbook of that year (1774) an entry of the narrative, as taken from the mouth of some person, whose name, however, is not noted, nor recollected, precisely in the words stated in the *Notes on Virginia*. The speech was published in the *Virginia Gazette* of that time, (I have it myself in the volume of gazettes of that year,) and though it was the translation made by the common interpreter, and in a style by no means elegant, yet it was so admired, that it flew through all the public papers of the continent, and through the magazines and other periodical publications of Great Britain; and those who were boys at that day will now attest, that the speech of Logan used to be given them as a school exercise for repetition. It was not until about thirteen or fourteen years after the newspaper publications, that the *Notes on Virginia* were published in America. Combating, in these, the contumelious theory of certain European writers, whose celebrity gave currency and weight to their opinions, that our country from the combined effects of soil and climate, degenerated animal nature, in general, and particularly the moral faculties of man, I considered the speech of Logan as an apt proof of the contrary, and used it as such; and I copied, verbatim, the narrative I had taken down in 1774, and the speech as it had been given to us in a better translation by Lord Dunmore. I knew nothing of the Cresaps, and could not possibly have a motive to do them an injury with design. I repeated what thousands had done before, on as good authority as we have for most of the facts we learn through life, and such as, to this moment, I have seen no reason to doubt. That any body questioned it, was never suspected by me, till I saw the letter of Mr. Martin in the Baltimore paper. I endeavored then to recollect who among my contemporaries, of the same circle of society, and consequently of the same recollections, might still be alive; three and twenty years of death and dispersion had left very few. I remembered, however, that General Gibson was still living, and knew that he had been the translator of the speech. I wrote to him immediately. He, in answer, declares to me, that he was the very person sent by Lord Dunmore to the Indian town; that, after he had delivered his message there, Logan took him out to a neighboring wood; sat down with him, and rehearsing, with tears, the catastrophe of his family, gave him that speech for Lord Dunmore; that he carried it to Lord Dunmore; translated it to him; has turned to it in the Encyclopedia, as taken from the *Notes on Virginia*, and finds that it was his translation I had used, with only two or three verbal variations of no importance. These, I suppose, had risen in the course of successive copies. I cite General Gibson’s letter by memory, not having it with me; but I am sure I cite it substantially right. It establishes unquestionably, that the speech of Logan is genuine; and that being established, it is Logan himself who is author of all the important facts. ‘Colonel Cresap,’ says he, ‘in cold blood and unprovoked, murdered all the relations of Logan, not sparing even my women and children; there runs not a drop of my blood in the veins of any living creature.’ The
person and the fact, in all its material circumstances, are here given by Logan himself. General Gibson, indeed, says, that the title was mistaken; that Cresap was a Captain, and not a Colonel. This was Logan’s mistake. He also observes, that it was on another water of the Ohio, and not on the Kanhaway, that his family was killed. This is an error which has crept into the traditionary account; but surely of but little moment in the moral view of the subject. The material question is, was Logan’s family murdered, and by whom? That it was murdered has not, I believe, been denied; but it was by one of the Cresaps, Logan affirms. This is a question that concerns the memories of Logan and Cresap; to the issue of which I am as indifferent as if I had never heard the name of either. I have begun and shall continue to inquire into the evidence additional to Logan’s, on which the fact was founded. Little, indeed, can now be heard of, and that little dispersed and distant. If it shall appear on inquiry, that Logan has been wrong in charging Cresap with the murder of his family, I will do justice to the memory of Cresap, as far as I have contributed to the injury, by believing and repeating what others had believed and repeated before me. If, on the other hand, I find that Logan was right in his charge, I will vindicate as far as my suffrage may go, the truth of a Chief, whose talents and misfortunes have attached to him the respect and commiseration of the world.

I have gone, my dear Sir, into this lengthy detail to satisfy a mind, in the candor and rectitude of which I have the highest confidence. So far as you may incline to use the communication for rectifying the judgments of those who are willing to see things truly as they are, you are free to use it. But I pray that no confidence which you may repose in any one, may induce you to let it go out of your hands, so as to get into a newspaper: against a contest in that field I am entirely decided. I feel extraordinary gratification, indeed, in addressing this letter to you, with whom shades of difference in political sentiment have not prevented the interchange of good opinion, nor cut off the friendly offices of society and good correspondence. This political tolerance is the more valued by me, who consider social harmony as the first of human felicities, and the happiest moments, those which are given to the effusions of the heart. Accept them sincerely, I pray you, from one who has the honor to be, with sentiments of high respect and attachment, dear Sir, your most obedient and most humble servant.”

From this time, Jefferson corresponded in many directions to obtain proof on the subject, and succeeded in securing a number of depositions and narratives relating to the frontier disturbances. A portion of these most favorable to Jefferson’s account, he printed in pamphlet form, three years later, with the title of:

An/Appendix/to the/Notes on Virginia/Relative to the Murder of Logan’s Family./ By Thomas Jefferson: / Philadelphia: / Printed by Samuel H. Smith./M,D,CCC./ [8vo. pp. 51].

This Appendix was included in all subsequent editions of the Notes on Virginia, but as it has little relation to Jefferson, the present editor merely prints Jefferson’s introduction to the documents and his conclusion.

“Introduction to Appendix.
“The Notes on Virginia were written, in Virginia, in the years 1781 and 1782, in answer to certain queries proposed to me by Monsieur de Marbois, then secretary of the French legation in the United States; and a manuscript copy was delivered to him. A few copies, with some additions, were afterwards, in 1784, printed in Paris, and given to particular friends. In speaking of the animals of America, the theory of M. de Buffon, the Abbe Raynal, and others presented itself to consideration. They have supposed there is something in the soil, climate, and other circumstances of America, which occasions animal nature to degenerate, not excepting even the man, native or adoptive, physical or moral. This theory, so unfounded and degrading to one-third the globe, was called to the bar of fact and reason. Among other proofs adduced in contradiction of this hypothesis, the speech of Logan, an Indian chief, delivered to Lord Dunmore in 1774, was produced, as a specimen of the talents of the aboriginals of this country, and particularly of their eloquence; and it was believed that Europe had never produced anything superior to this morsel of eloquence. In order to make it intelligible to the reader, the transaction, on which it was founded, was stated, as it had been generally related in America at the time, and as I had heard it myself, in the circle of Lord Dunmore, and the officers who accompanied him; and the speech itself was given as it had, ten years before the printing of that book, circulated in the newspapers through all the then colonies, through the magazines of Great Britain, and periodical publications of Europe. For three and twenty years it passed uncontradicted; nor was it ever suspected that it even admitted contradiction. In 1797, however, for the first time, not only the whole transaction respecting Logan was affirmed in the public papers to be false, but the speech itself suggested to be a forgery, and even a forgery of mine, to aid me in proving that the man of America was equal in body and in mind, to the man of Europe. But wherefore the forgery; whether Logan’s or mine, it would still have been American. I should indeed consult my own fame if the suggestion, that this speech is mine, were suffered to be believed. He would have just right to be proud who could with truth claim that composition. But it is none of mine; and I yield it to whom it is due.

“On seeing then that this transaction was brought into question, I thought it my duty to make particular inquiry into its foundation. It was the more my duty, as it was alleged that, by ascribing to an individual therein named, a participation in the murder of Logan’s family, I had done an injury to his character, which it had not deserved. I had no knowledge personally of that individual. I had no reason to aim an injury at him. I only repeated what I had heard from others, and what thousands had heard and believed as well as myself; and which no one indeed, till then, had been known to question. Twenty-three years had now elapsed, since the transaction took place. Many of these acquainted with it were dead, and the living dispersed to very distant parts of the earth. Few of them were even known to me. To those however of whom I knew, I made application by letter; and some others, moved by a regard for truth and justice, were kind enough to come forward, of themselves, with their testimony. These fragments of evidence, the small remains of a mighty mass which time has consumed, are here presented to the public, in the form of letters, certificates, or affidavits, as they came to me. I have rejected none of these forms, nor required other solemnities from those whose motives and characters were pledges of their truth. Historical transactions are deemed to be well vouched by the simple declarations of those who have borne a part in them; and especially of persons having no interest to falsify or disfigure
them. The world will now see whether they, or I, have injured Cresap, by believing Logan’s charge against him; and they will decide between Logan and Cresap, whether Cresap was innocent, and Logan a caluminator?

“In order that the reader may have a clear conception of the transactions, to which the different parts of the following declarations refer, he must take notice that they establish four different murders. 1. Of two Indians, a little above Wheeling. 2. Of others at Grave Creek, among whom were some of Logan’s relations. 3. The massacre at Baker’s bottom, on the Ohio, opposite the mouth of Yellow Creek, where were other relations of Logan. 4. Of those killed at the same place, coming in canoes to the relief of their friends. I place the numbers 1, 2, 3, 4, against certain paragraphs of the evidence, to indicate the particular murder to which the paragraph relates and present also a small sketch or map of the principal scenes of these butcheries, for their more ready comprehension.”

The various documents are then printed, and the whole concluded by a summary as below:

“From this testimony the following historical statement results:

“In April or May, 1774, a number of people being engaged in looking out for settlements on the Ohio, information was spread among them, that the Indians had robbed some of the land-jobbers, as those adventurers were called. Alarmed for their safety, they collected together at Wheeling Creek. Hearing there that there were two Indians and some traders a little above Wheeling, Captain Michael Cresap, one of the party, proposed to waylay and kill them. The proposition, though opposed, was adopted. A party went up the river, with Cresap at their head, and killed the two Indians.

“The same afternoon it was reported that there was a party of Indians on the Ohio, a little below Wheeling. Cresap and his party immediately proceeded down the river, and encamped on the bank. The Indians passed him peaceably, and encamped at the mouth of Grave Creek, a little below. Cresap and his party attacked them and killed several. The Indians returned the fire, and wounded one of Cresap’s party. Among the slain of the Indians were some of Logan’s
family, Colonel Zane indeed expresses a doubt of it; but it is affirmed by Houston and Chambers. Smith, one of the murderers, said they were known and acknowledged to be Logan’s friends and the party themselves generally said so; boasted of it in the presence of Cresap; pretended no provocation; and expressed their expectations that Logan would probably avenge their deaths.

“Pursuing these examples Daniel Great-house, and one Tomlinson, who lived on the opposite side of the river from the Indians, and were in habits of friendship with them, collected, at the house of Polke, on Cross Creek, about 16 miles from Baker’s Bottom, a party of 32 men. Their object was to attack a hunting encampment of Indians, consisting of men, women, and children, at the mouth of Yellow Creek, some distance above Wheeling. They proceeded, and when arrived near Baker’s Bottom, they concealed themselves, and Great-house crossed the river to the Indian camp. Being among them as a friend, he counted them, and found them too strong for an open attack with his force. While here, he was cautioned by one of the women not to stay, for that the Indian men were drinking, and having heard of Cresap’s murder of their relations at Grave Creek, were angry, and she pressed him in a friendly manner, to go home; whereupon, after inviting them to come over and drink, he returned to Baker’s, which was a tavern, and desired that when any of them should come to his house he would give them as much rum as they would drink. When his plot was ripe, and a sufficient number of them were collected at Baker’s, and intoxicated, he and his party fell on them and massacred the whole, except a little girl, whom they preserved as a prisoner. Among these was the very woman who had saved his life, by pressing him to retire from the drunken wrath of her friends, when he was spying their camp at Yellow Creek. Either she herself, or some other of the murdered women, was the sister of Logan, very big with child, and inhumanly and indecently butchered; and there were others of his relations who fell here.

“The party on the other side of the river, alarmed for their friends at Baker’s, on hearing the report of the guns, manned two canoes and sent them over. They were received, as they
approached the shore, by a well-directed fire from Great-house’s party, which killed some, wounded others, and obliged the rest to put back. Baker tells us there were twelve killed, and six or eight wounded.

“This commenced the war, of which Logan’s war-club and note left in the house of a murdered family was the notification. In the course of it, during the ensuing summer, a great number of innocent men, women, and children, fell victims to the tomahawk and scalping knife of the Indians, till it was arrested in the autumn following by the battle at Point Pleasant, and the pacification of Lord Dunmore, at which the speech of Logan was delivered.

“Of the genuineness of that speech nothing need be said. It was known to the camp where it was delivered; it was given out by Lord Dunmore and his officers; it ran through the public papers of these States; was rehearsed as an exercise at schools; published in the papers and periodical works of Europe; and all this, a dozen years before it was copied into the Notes on Virginia. In fine, General Gibson concludes the question for ever, by declaring that he received it from Logan’s hand, delivered it to Lord Dunmore, translated it for him, and that the copy in the Notes on Virginia is a faithful copy.

“The popular account of these transactions, as stated in the Notes on Virginia, appears, on collecting exact information, imperfect and erroneous in its details. It was the belief of the day; but how far its errors were to the prejudice of Cresap, the reader will now judge. That he, and those under him, murdered two Indians above Wheeling; that they murdered a large number at Grave Creek, among whom were a part of the family and relations of Logan, cannot be questioned; and as little that this led to the massacre of the rest of the family at Yellow Creek. Logan imputed the whole to Cresap, in his war-note and peace-speech: the Indians generally imputed it to Cresap: Lord Dunmore and his officers imputed it to Cresap: the country, with one accord, imputed it to him: and whether he were innocent, let the universal verdict now declare.”

The whole question was again very fully discussed in Brantz Mayer’s Tah Gah Jute; or, Logan and Cresap, where certain evidence that had been suppressed by Jefferson is given. After a careful study of the controversy, it becomes evident that Jefferson’s account, in implicating Cresap, was unfounded in fact, and had Jefferson confessed his error, he would have acquitted himself of any responsibility for the false statement, for he merely, as George Rogers Clark wrote, repeated what was popular rumor of the day “on a subject which I know he was not the Author of.” But in subsequent editions the original version is unchanged, and by Jefferson’s suppression of proof against his view, he became truly answerable for the statement. How far this deception was induced by the personal and political antipathy between himself and Martin cannot be decided, but the whole matter was used as political ammunition by both parties, and presumably produced the usual verity that political controversy is famous for. Even in the latest revision of the Notes on Virginia, Jefferson made no change in the statement; but Washington, in the text he printed in his edition of Jefferson’s writings, took the liberty of changing the paragraph, to read:
“In the spring of the year 1774, a robbery was committed by some Indians on certain land-adventurers on the river Ohio. The whites in that quarter, according to their custom, undertook to punish this outrage in a summary way. Captain Michael Cresap, and a certain Daniel Greathouse, leading on these parties, surprised, at different times, travelling and hunting parties of the Indians, having their women and children with them, and murdered many. Among these were unfortunately the family of Logan, a chief celebrated in peace and war, and long distinguished as a friend of the whites”

Aside from the controversy over Cresap’s implication in the death of Logan’s kin, were the questions of the authenticity of the speech as reported by Jefferson, and the nativity of the maker. The earliest known version of the speech is contained in a letter from James Madison to William Bradford, dated January 20, 1775. A slightly varying version was printed in the Virginia Gazette of February 4, 1775, and was extensively copied by other papers. There are slight verbal variations in both from that printed by Jefferson, but none such as discredit his text. It is thus evident that the speech is thoroughly authentic. As to the origin of Logan, the balance of positive evidence seems to indicate that he was a half-breed; even without the additional generalization that the holding of Indians as slaves in the early colony days, the frequent capture and adoption of white children by the savages, as well as the less obvious mixture of races caused by the character and condition of the frontiersman and the moral standards of the Indians, had left few full-blooded Indians in the regions of white settlement and exploration. The superiority of the Indian in combating with the whites in the last fifty years of the eighteenth century, over the earlier periods, though the relative proportion of numbers had been entirely reversed, proves the change the race had undergone, and possibly explains an eloquence nowhere mentioned by the early travellers in America.

[1]“Monsieur Buffon has indeed given an afflicting picture of human nature in his description of the man of America. But sure I am there never was a picture more unlike the original. He grants indeed that his stature is the same as that of the man of Europe. He might have admitted, that the Iroquois were larger, and the Lenapi, or Delawares, taller than people in Europe generally are. But he says their organs of generation are smaller and weaker than those of Europeans. Is this a fact? I believe not; at least it is an observation I never heard before.—‘They have no beard.’ Had he know the pains and trouble it cost the men to pluck out by the roots the hair that grows on their faces, he would have seen that nature had not been deficient in that respect. Every nation has its customs. I have see an Indian beau, with a looking-glass in his hand, examining his face for hours together, and plucking out by the roots every hair he could discover, with a kind of tweezer made of a piece of fine brass wire that had been twisted round a stick, and which he used with great dexterity.—‘They have no ardor for their females.’ It is true they do not indulge those excesses, nor discover that fondness which is customary in Europe; but this is not owing to a defect in nature but to manners. Their soul is wholly bent upon war. This is what procures them glory among the men, and makes them the admiration of the women. To this they are educated from their earliest youth. When they pursue game with ardor, when they bear the fatigues of the chase, when they sustain and suffer patiently hunger and cold; it is not so much for the sake of the game they pursue, as to convince their parents and the council of the nation that they are fit to
be enrolled in the number of the warriors. The songs of the women, the dance of the warriors, the sage council of the chiefs, the tales of the old, the triumphal entry of the warriors returning with success from battle, and the respect paid to those who distinguish themselves in war, and in subduing their enemies; in short, everything they see or hear tends to inspire them with an ardent desire for military fame. If a young man were to discover a fondness for women before he has been to war, he would become the contempt of the men, and the scorn and ridicule of the women. Or were he to indulge himself with a captive taken in war, and much more were he to offer violence in order to gratify his lust, he would incur indelible disgrace. The seeming frigidity of the men, therefore, is the effect of manners, and not a defect of nature. Besides, a celebrated warrior is oftener courted by the females, than he has occasion to court; and this is a point of honor which the men aim at. Instances similar to that of Ruth and Boaz are not uncommon among them. For though the women are modest and diffident, and so bashful that they seldom lift up their eyes, and scarce ever look a man full in the face, yet, being brought up in great subjection, custom and manners reconcile them to modes of acting, which, judged of by Europeans, would be deemed inconsistent with the rules of female decorum and propriety. I once saw a young widow, whose husband, a warrior, had died about eight days before, hastening to finish her grief, and who, by tearing her hair, beating her breast, and drinking spirits, made the tears flow in great abundance, in order that she might grieve much in a short space of time, and be married that evening to another young warrior. The manner in which this was viewed by the men and women of the tribe, who stood round, silent and solemn spectators of the scene, and the indifference with which they answered my question respecting it, convinced me that it was no unusual custom. I have known men advanced in years, whose wives were old and past childbearing, take young wives, and have children, though the practice of polygamy is not common. Does this savor of frigidity, or want of ardor for the female? Neither do they seem to be deficient in natural affection. I have seen both fathers and mothers in the deepest affliction, when their children have been dangerously ill: though I believe the affection is stronger in the descending than the ascending scale, and though custom forbids a father to grieve immoderately for a son slain in battle. ‘That they are timorous and cowardly,’ is a character with which there is little reason to charge them, when we recall the manner in which the Iroquois met Monsieur —, who marched into their country; in which the old men, who scorned to fly, or to survive the capture of their town, braved death, like the old Romans in the time of the Gauls, and in which they soon after revenged themselves by sacking and destroying Montreal. But above all, the unshaken fortitude with which they bear the most excruciating tortures and death when taken prisoners, ought to exempt them from that character. Much less are they to be characterized as a people of no vivacity and who are excited to action or motion only by the calls of hunger and thirst. Their dances in which they so much delight, and which to an European would be the most severe exercise, fully contradicted this, not to mention their fatiguing marches, and the toil they voluntarily and cheerfully undergo in their military expeditions. It is true, that when at home, they do not employ themselves in labor or the culture of the soil; but this again is the effect of customs and manners, which have assigned that to the province of the women. But it is said, they are averse to society and a social life. Can anything be more inapplicable than this to a people who always live in towns or clans? Or can they be said to have no ‘republic,’ who conduct all their affairs in national councils, who pride themselves in their national character, who consider
an insult or injury done to an individual by a stranger as done to the whole, and resent it accordingly? In short, this picture is not applicable to any nation of Indians I have ever known or heard of in North America.”—*Charles Thomson in Appendix.*

In the edition of 1853, a footnote adds: “No writer equally with M. De Buffon, proves the power of eloquence and uncertainty of theories. He takes any hypothesis whatever, or its reverse, and furnishes explanations equally specious and persuasive. Thus in his xviii volume, wishing to explain why the largest animals are found in the torrid zone, he assumes heat as the efficient principle of the animal volume. Speaking of America, he says: “Le terre y est froide impuissante a produire les principes actifs, a developer les germes des plus grandes quadrupedes auxquels il faut, pour croire et se multiplier, toute la chaleur toute l’activité que le soleil peut donner a la terre amoureuse.” Page 156. “L’ardeur des hommes, et la grandeur des animaux dependent de la salubrité, et de la chaleur de l’air,” *Ib.* 160. In his Epochs again when it is become convenient to his theory to consider the bones of the mammoth found in the coldest regions, as the bones of the elephant, and necessary to explain how the elephant there should have been six times as large as that of the torrid zone, it is cold which produces animal volume. ‘Tout ce qu’il y a de colossal et de grand dans la nature, a ete formé dans les terres du Nord.’ 1 Epoques, 255. ‘C’est dans les regions de notre Nord que le nature vivante s’est elevee a ses plus grandes dimensions.’ *Ib.,* 263.”

[1] In connection with this, it is amusing to quote an anecdote told to Jefferson by Franklin, in Jefferson’s own words: “The Doctor told me at Paris the . . . following . . . of the Abbé Raynal. He had a party to dine with him one day at Passy, of whom one half were Americans, the other half French, and among the last was the Abbé. During the dinner he got on his favorite theory of the degeneracy of animals, and even of man, in America, and urged it with his usual eloquence. The Doctor at length noticing the accidental stature and position of his guests, at table, ‘Come,’ sayd he, ‘M. L’Abbé, let us try this question by the fact before us. We are here one half Americans, and one half French, and it happens that the Americans have placed themselves on one side of the table, and our French friends are on the other. Let both parties rise, and we will see on which side nature has degenerated.’ It happened that his American guests were Carmichael, Harmer, Humphreys, and others of the finest stature and form; while those of the other side were remarkably diminutive, and the Abbé himself particularly, was a mere shrimp. He parried the appeal, however, by a complimentary admission of exceptions, among which the Doctor himself was a conspicuous one.”

[1] Has the world as yet produced more than two poets, acknowledged to be such by all nations? An Englishman only reads Milton with delight, an Italian, Tasso, a Frenchman the Henriade; a Portuguese, Camoens; but Homer and Virgil have been the rapture of every age and nation; they are read with enthusiasm in their originals by those who can read the originals, and in translations by those who cannot.—*T. J.*

[1] There are various ways of keeping truth out of sight. Mr. Rittenhouse’s model of the planetary system has the plagiary appellation of an Orrery; and the quadrant invented by
Godfrey, an American also, and with the aid of which the European nations traverse the globe, is called Hadley's quadrant.—T. J.

In the edition of 1853 an addition is made to this note as follows: “Huyghens gave the first description of an instrument of the former kind, under the name of Automatom Planetarium.—2 Montucla, 485.”

[1] In a later edition of the Abbé Raynal’s work, he has withdrawn his censure from that part of the new world inhabited by the Federo-Americans; but has left it still on the other parts. North America has always been more accessible to strangers than South. If he was mistaken then as to the former, he may be so as to the latter. The glimmerings which reach us from South America enable us to see that its inhabitants are held under the accumulated pressure of slavery, superstition and ignorance. Whenever they shall be able to rise under this weight, and to show themselves to the rest of the world, they will probably show they are like the rest of the world. We have not yet sufficient evidence that there are more lakes and fogs in South America than in other parts of the earth. As little do we know what would be their operation on the mind of man. That country has been visited by Spaniards and Portuguese chiefly, and almost exclusively. These, going from a country of the old world remarkably dry in its soil and climate, fancied there were more lakes and fogs in South America than in Europe. An Inhabitant of Ireland, Sweden, or Finland would have formed the contrary opinion. Had South America then been discovered and seated [sic] by a people from a fenny country, it would probably have been represented as much dryer than the old world. A patient pursuit of facts, and cautious combination and comparison of them, is the drudgery to which man is subjected by his Maker, if he wishes to attain sure knowledge.—T. J.

[1] In the edition of 1853 is a footnote: “The Bald Coot or Coot, is the Fulica of Linnæus, and the Foulque of the Encyclop. Meth. differing from the description of the latter only in the color of its feet and legs, which are olive green, without any circle of red, and that of the bill a faint carnation, brown at the point, and the membrane on the forehead of a very dark purple. It is distinguished from the Gallinula chloropus Poule d’eau, Water-hen, Hydro-gallina, chiefly by the festooned web bordering the toes.”


[1] In the edition of 1853 is a footnote: “See Herrera, Dec. 1, l. 10, c. s. ‘Descubierta Yucatan, se halló abundancia de cera y miel.’ And ib. c. 9. ‘Ay abispas y abexas, como las de Castilla, aunque estas son menores, y pican con mas furia.’—Ib. Dec. 2, l. 3, c. i.”

[1] In the edition of 1853 is a footnote: “See 1 Clavigero, 107. ‘En los terminos de Guayaquil ay abejas, que enxambran y criam miel en el hucco de los arboles son poco mayores que moscas, la
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cera y miel que labran es rubia y aunque tiene buengusto no es tal como el de Castilla.’ Herr. 5, 10, 10.”

[2 ]1. 126.—T. J.

[3 ]An additional paragraph is added in the edition of 1853, stating: “We have it from the Indians also that the common domestic fly is not originally of America, but came with the whites from Europe.” To this is subjoined the following footnote: “We have the same account from South America. Condamine in his Voyage de la riviere Amazones, pa. 95, says: ‘Divers Indiens ont rapporté qu’ils avoient vu sur les bords de la riviere de Coari dans la haut des terres, un pays découvert, des mouches et quantité de betes à cornes, objects nouveaux pour eux, et qui prouvent que les sources deces rivieres arrosent des pays voisins des colonies Espagnoles de haut Perou.’”

[1 ]In the edition of 1853 the following additional matter is here inserted: [supposed to have been made at Monticello.]

1789 Oct’r 1 Ice    Snow Birds Spoiled tobacco on the scaffold.
1792 Sep. 21 None   None   Tobacco destroyed totally out of green belt.
1808 Sep. 27 None   None   Tobacco, except in green belt, untouched.
1816 Oct’r 7 thin ice Snow Birds Late corn spoiled; all safe in green belt.
1823 Sep. 29 None   None   Green belt unaffected; pumpkin vine frozen.

In the month of August, 1801, I carefully examined the temperature of my well water in the District of Maine, and found it at 52 degrees of Fahrenheit’s thermometer.

The depth of the well is 28 feet; the depth of the water at this time was 4 feet; the latitude of the place is 44 22 North; longitude about 69 40 W.

In September, 1802, I examined with the same instrument, and with equal care, the temperature of the well water, where I live, on the Capitol hill, and found it at 59° of Fahrenheit. This well is upwards of 40 feet in depth, and had at the time about 7 or 8 feet of water.

My well, in Maine, is an open draw well, without a pump; the well on the Capitol hill has a pump, and is close covered.

The temperature of the water of Kennebeck river, the latter part of August, was 72½ by Fahrenheit. H. Dearborn.

[1 ]See a Note at the end of the Work.—T. J.

[1 ]In the edition of 1853 is added: “and in a single and most remarkable instance, on the 4th of July, 1793, in Orange county, it fell from 84° to 74° in ten minutes.”

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At Paris, in 1753, the mercury in Reaumur’s thermometer was at 30½ above 0., and in 1776, it was at 16 below 0. The extremities of heat and cold therefore at Paris, are greater than at Williamsburg, which is in the hottest part of Virginia.—T. J.

In the edition of 1853 this footnote is added:

“The following observations on heat and cold, as they affect the animal body, may not be unacceptable to those who have not paid particular attention to the subject.

“The living body, (not like the dead one, which assumes the temperature of the surrounding atmosphere,) maintains within itself a steady heat of about 96° of Fahrenheit’s thermometer, varying little with the ordinary variations of the atmosphere. This heat is principally supplied by respiration. The vital air, or oxygen of the atmospheric fluid inhaled, is separated by the lungs from the azotic and carbonic parts, and is absorbed by them; the caloric is disengaged, diffused through the mass of the body, and absorbed from the skin by the external air coming into contact with it. If the external air is of a high temperature, it does not take up the superfluous heat of the body fast enough, and we complain of too much heat; if it is very cold, it absorbs the heat too fast, and produces the sensation of cold. To remedy this, we interpose a covering, which acting as a strainer, lets less air come into contact with the body, and checks the escape of the vital heat. As the atmospheric air becomes colder, more or thicker coverings are used, till no more than the requisite portion of heat is conducted from the body. As it would be inconvenient in the day to be burthened with a mass of clothing entirely equivalent to great degrees of cold, we have resort to fires and warm rooms to correct the state of the atmosphere, as a supplement of our clothing. If we have not the opportunity, and the cold is excessive, the thinner parts as the ear, the nose, the fingers and toes lose heat till they freeze, and, if the cold be sufficient, the whole body is reduced in heat, till death ensues: as sailors experience who escape from shipwreck, in Winter storms, on desert shores, where no fire can be found.

“Of the substances we use for covering, linen seems the openest strainer for admission of air to the body, and the most copious conductor of heat from it; and is therefore considered as a cool clothing. Cotton obstructs still more the passage of both fluids, and wool more than cotton: it is called therefore a worse conductor of heat, and warmer clothing. Next to this are the furs, and the most impermeable of all for heat and air are feathers and down, and especially the down of the Eider duck.—(Anas mollissima.) Hence the insensibility to cold of the beasts with shaggy hair, or fine fur, and of the birds in proportion as they are provided with down and soft feathers: as the swan, goose, duck.

“Among the substances which, as being bad conductors of heat, foment and warm the animal body, are the leaves of the Eseletia Frailexon, a plant newly discovered by the great naturalist and traveller Baron Humboldt, on the mountains of South America, at the height of 2,450 toises above the sea. These leaves being furnished abundantly with a soft down, restore immediately to their due warmth the hands, feet, or other members benumbed with cold; and collected as a bed, protect from death the Indian benighted in those regions of extreme cold. The same scientific
traveller, by analysis of the air, at different heights on the mountain of Chimborazo which he ascended to the height of 3,036 toises, (546 toises higher than had ever been done by man before, and within 224 toises of its top) found that the oxygen being specifically heavier than the azotic part of the atmosphere, its proportion lessened in that ascent 27 or 28 to 19½ hundredth parts. The same circumstance had been before observed by Saussure, Pini and Rebout, on the high mountains of Europe, and must be among the principal causes of the degree in which the animal body is affected with cold in situations more or less elevated.

“In addition to the effect of vital air, as the vehicle of animal heat, we may note that it is also the immediate cause, or primum mobile of life. For, entering by respiration into the air-cells of the lungs, divided from those of the blood but by a thin membrane, it infuses through that a stimulus into the blood, which, acting on the irritable fibres of the heart, excites mechanically the action and reaction of that muscle. By these the blood is propelled, and received again in a course of constant circulation and vital action communicated and maintained through all the system. Intercept vital air from the lungs, the action of the heart ceases for want of stimulus, the current of the blood, unaided, yields to the resistance of its channels, all the vital motions are suspended, the body becomes an inanimate lump of matter.”

[1]“Musschenb. has seen ice produced at 41°.—2 Muss. 1, 507.”—Footnote in edition of 1853.

[2] In the edition of 1853 this passage is altered from this point on to read: “having seldom during that time seen them at Monticello during Summer.”

[1]“Dr. Shaw in his physical observations on Syria, speaking of the easterly winds, called by seamen Leventers, says ‘We are likewise to observe further with regard to these strong easterly winds, that vessels, or any other objects which are seen at a distance appear to be vastly magnified, or loom, according to the mariners expression.’—Shaw’s travels, 362.”—Footnote in edition of 1853.


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[1] In the edition of 1853 is added at this point:

“1756 173,316 inhabitants.
1764 250,000
1774 300,000

[See Boston Patriot, Sept. 16, 1809.] Pownals authority quoted in J. Adams 17th letter.”

[1] “The first settlement of Europeans in America was by the Spaniards in St. Domingo in 1493. So early as 1501 we find they had already got into the habit of carrying the negroes there as slaves, and in 1503 they had become so inconvenient, that Ovando, the Governor, put a stop to their importation. Herrera. Dec. 1, b. 2, ch. 10: B. 4, ch. 12; B. 5, ch. 12; but in 1511 they were again fully in the same habit. The king’s instructions at that date were “Que se buscasse forma como se llevassen muchos negros Guinea, porque era mas util el trabajo de un negro, que de quatro Indios.—Herrera. Dec. 1, L., 9, c. 5; Dec. 2, L., 2, c. 8, 20.”—Footnote in edition of 1853.
[1] From this note it is apparent that Jefferson must have prepared some of his memoranda while he was still governor of Virginia, or before the arrival of the French fleet.

[1] In the edition of 1787 and subsequent ones the words following “so many little societies” are omitted, and a paragraph inserted as follows:

“This practice results from the circumstance of their having never submitted themselves to any laws, any coercive power, any shadow of government. Their only controls are their manners, and that moral sense of right and wrong, which, like the sense of tasting and feeling in every man, makes a part of his nature. An offence against these is punished by contempt, by exclusion from society, or, where the case is serious, as that of murder, by the individuals whom it concerns. Imperfect as this species of coercion may seem, crimes are very rare among them, insomuch that were it made a question, whether no law, as among the savage Americans, or too much law, as among the civilized Europeans, submits man to the greatest evil, one who has seen both conditions of existence would pronounce it to be the last; and that the sheep are happier of themselves, than under care of the wolves. It will be said, that great societies cannot exist without government. The savages, therefore, break them into small ones.”

[1] Smith.—T. J.

[2] Evans.—T. J.

[1] “As far as I have been able to learn, the country from the seacoast to the Alleghany, and from the most southern waters of James River, now in the State of Maryland, was occupied by three different nations of Indians, each of which spoke a different language, and were under separate and distinct governments. What the original or real names of those nations were, I have not been able to learn with certainty; but by us they are distinguished by the names of Powhatans, Mannahoacs, now commonly called Tuscaroras. The Powhatans, who occupied the country from the sea shore up to the falls of the rivers, were a powerful nation, and seem to have consisted of seven tribes, five on the western and two on the eastern shore. Each of these tribes was subdivided into towns, families, or clans, who lived together. All the nations of Indians in North America lived in the hunter state, and depended for subsistence on hunting, fishing, and the spontaneous fruits of the earth, and a kind of grain which was planted and gathered by the women, and is now known by the name of Indian corn. Long potatoes, pumpkins of various kinds, and squashes, were also found in use among them. They had no flocks, herds, or tamed animals of any kind. Their government is a kind of patriarchal confederacy. Every town or family has a chief, who is distinguished by a particular title, and whom we commonly call ‘Sachem.’ The several towns or families that compose a tribe, have a chief who presides over it, and the several tribes composing a nation have a chief who presides over the whole nation. These chiefs are generally men advanced in years, and distinguished by their prudence and abilities in council. The matters which merely regard a town or family are settled by the chief and principal men of the town; those which regard a tribe, such as the appointment of head warriors or captains, and settling differences between different towns and families, are regulated at a
meeting or council of the chiefs from the several towns; and those which regard the whole nation, such as the making war, concluding peace, or forming alliances with the neighboring nations, are deliberated on and determined in a national council composed of the chiefs of the tribe, attended by the head warriors and a number of the chiefs from the towns, who are his counsellors. In every town there is a council house, where the chief and old men of the town assemble, when occasion requires, and consult what is proper to be done. Every tribe has a fixed place for the chiefs of the towns to meet and consult on the business of the tribe; and in every nation there is what they call the central council house, or central council fire, where the chiefs of the several tribes, with the principal warriors, convene to consult and determine on their national affairs. When any matter is proposed in the national council, it is common for the chiefs of the several tribes to consult thereon apart with their counsellors, and when they have agreed, to deliver the opinion of the tribe at the national council; and, as their government seems to rest wholly on persuasion, they endeavor, by mutual concessions, to obtain unanimity. Such is the government that still subsists among the Indian nations bordering upon the United States. Some historians seem to think, that the dignity of office of Sachem was hereditary. But that opinion does not appear to be well founded. The sachem or chief of the tribe seems to be by election. And sometimes persons who are strangers, and adopted into the tribe, are promoted to this dignity, on account of their abilities. Thus on the arrival of Captain Smith, the first founder of the colony of Virginia, Opechancanough, who was Sachem or chief of the Chickahominies, one of the tribes of the Powhatans, is said to have been of another tribe, and even of another nation, so that no certain account could be obtained of his origin or descent. The chiefs of the nation seem to have been by a rotation among the tribes. Thus when Captain Smith, in the year 1609, questioned Powhatan (who was the chief of the nation, and whose proper name is said to have been Wahunsonacock) respecting the succession, the old chief informed him, ‘that he was very old, and had seen the death of all his people thrice*; that not one of these generations were then living except himself; that he must soon die, and the succession descend in order to his brother Opichapan, Opechancanough, and Catataugh, and then to his two sisters, and their two daughters.’ But these were appellations designating the tribes in the confederacy. For the persons named are not his real brothers, but the chiefs of different tribes. Accordingly in 1618, when Powhatan died, he was succeeded by Opichapan, and after his decease, Opechancanough became chief of the nation. I need only mention another instance to show that the chiefs of the tribes claimed this kindred with the head of the nation. In 1622, when Raleigh Crashaw was with Japazaw, the Sachem or chief of the Potomacs, Opechancanough, who had great power and influence, being the second man in the nation, and next in succession to Opichapan, and who was a bitter but secret enemy to the English, and wanted to engage his nation in a war with them, sent two baskets of beads to the Potomac chief, and desired him to kill the Englishman that was with him. Japazaw replied, that the English were his friends, and Opichapan his brother, and that therefore there should be no blood shed between them by his means. It is also to be observed, that when the English first came over, in all their conferences with any of the chiefs, they constantly heard him make mention of his brother, with whom he must consult, or to whom he referred them, meaning thereby either the chief of the nation, or the tribes in confederacy. The Manahoacks are said to have been a confederacy of four tribes, and in alliance with the Monacans, in the war which they were carrying on against the Powhatans.
“To the northward of these there was another powerful nation which occupied the country from the head of the Chesapeake bay up to the Kittatinney mountain, and as far eastward as Connecticut river, comprehending that part of New York which lies between the Highlands and the ocean, all the State of New Jersey, that part of Pennsylvania which is watered, below the range of the Kittatinney mountains, by the rivers or streams falling into the Delaware, and the county of Newcastle in the State of Delaware, as far as Duck creek. It is to be observed, that the nations of Indians distinguished their countries one from another by natural boundaries, such as ranges of mountains or streams of water. But as the heads of rivers frequently interlock, or approach near to each other, as those who live upon a stream claim the country watered by it, they often encroached on each other, and this is a constant source of war between the different nations. The nation occupying the tract of country last described, called themselves Lenopi. The French writers call them Loups; and among the English they are now commonly called Delawares. This nation or confederacy consisted of five tribes, who all spoke one language. 1. The Chihohocki, who dwelt on the west side of the river now called Delaware, a name which it took from Lord De la War, who put into it on his passage from Virginia in the year —, but which by the Indians was called Chihohocki. 2. The Wanami, who inhabit the country called New Jersey, from the Rariton to the sea. 3. The Munsey, who dwelt on the upper streams of the Delaware, from the Kittatinney mountains down to the Lehigh or western branch of the Delaware. 4. The Wabinga, who are sometimes called River Indians, sometimes Mohickanders, and who had their dwelling between the west branch of Delaware and Hudson’s river, from the Kittatinney Ridge down to the Rariton; and 5. The Mahicon, or Manhattan, who occupied Staten Island, York Island (which from its being the principal seat of their residence was formerly called Manhattan), Long Island, and that part of New York and Connecticut which lies between Hudson and Connecticut rivers, from the highland, which is a continuation of the Kittatinney Ridge down to the Sound. This nation had a close alliance with the Shawanese, who lived on the Susquehanna and to the westward of that river, as far as the Alleghany mountains, and carried on a long war with another powerful nation or confederacy of Indians, which lived to the north of them between the Kittatinney mountains or highlands, and the Lake Ontario, and who call themselves Mingo-s, and are called by the French writers Iroquois, by the English the Five Nations, and by the Indians to the southward, with whom they were at war, Massawomacs. This war was carrying on in its greatest fury, when Captain Smith first arrived in Virginia. The Mingo Warriors had penetrated down the Susquehannah to the mouth of it. In one of his excursions up the bay, at the mouth of the Susquehannah, in 1608, Captain Smith met with six or seven of their canoes full of warriors, who were coming to attack their enemies in the rear. In an excursion which he had made a few weeks before, up the Rappahannock, and in which he had a skirmish with a party of the Manahoacs, and taken a brother of one of their chiefs prisoner, he first heard of this nation. For when he asked the prisoner why his nation attacked the English? the prisoner said, because his nation had heard that the English came from under the world to take their world from them. Being asked, how many worlds he knew? he said, he knew but one, which was under the sky that covered him, and which consisted of Powhatans, the Manakins, and the Massawomacs. Being questioned concerning the latter, he said, they dwelt on a great water to the North, that they had many boats, and so many men, that they waged war with all the rest of
the world. The Mingo confederacy then consisted of five tribes; three who are the elder, to wit, the Senecas, who live to the West, the Mohawks to the East, and the Onondagas between them; and two who are called the younger tribes, namely, the Cayugas and Oneidas. All these tribes speak one language, and were then united in a close confederacy, and occupied the tract of country from the east end of Lake Erie to Lake Champlain, and from the Kittatinney and Highlands to the Lake Ontario and the river Cadaraqui, or St. Lawrence. They had some time before that, carried on a war with a nation, who lived beyond the lakes, and were called Adirondacks. In this war they were worsted; but having made a peace with them, through the intercession of the French who were then settling Canada, they turned their arms against the Lenopi; and as this war was long and doubtful, they, in the course of it, not only exerted their whole force, but put in practice every measure which prudence or policy could devise to bring it to a successful issue. For this purpose they bent their course down the Susquehannah, and warring with the Indians in their way, and having penetrated as far as the mouth of it, they, by the terror of their arms, engaged a nation, now known by the name of Nanticocks, Conoys, and Tuteloes, and who lived between Chesapeake and Delaware bays, and bordering on the tribe of Chihohocki, to enter into an alliance with them. They also formed an alliance with the Monicans, and stimulated them to a war with the Lenopi and their confederates. At the same time the Mohawks carried on a furious war down the Hudson against the Mohiccons and River Indians, and compelled them to purchase a temporary and precarious peace, by acknowledging them to be their superiors, and paying an annual tribute. The Lenopi being surrounded with enemies, and hard pressed, and having lost many of their warriors, were at last compelled to sue for peace, which was granted to them on the condition that they should put themselves under the protection of the Mingoes, confine themselves to raising corn, hunting for the subsistence of their families, and no longer have the power of making war. This is what the Indians call making them women. And in this condition the Lenopi were when William Penn first arrived and began the settlement of Pennsylvania in 1682.”—Charles Thomson in Appendix.

[1] The os sacrum.—T. J.

[1] In the edition of 1853 a footnote is added as follows:

“The customs of burying the dead in burrows was anciently very prevalent. Homer describes the ceremony of raising one by the Greeks.

- ἀμφ’ αὐτῷ δ’ ἐπειτα μέγαν καὶ ἀμνιμονα τύμβον
- χεύαμεν Ἀργειων ἱερὸς στρατὸς αἰχμητάων
- ἀκτη ἐπι προύχουση, ἐπι πλατεί Ἐλλησπόντῳ
- ὄμης κεν τηλεφαυής ἐκ ποντόφιν ἀνδράσιν εἶν
- τοῖς, οἱ νῦν γεγάασι, καὶ οἱ μετόκισθεν ἔσονται.

“And Herodotus VII., 117, mentions an instance of the same practice in the army of Xerxes on the death of Artachæas.”
"From the figurative language of the Indians, as well as from the practice of those we are still acquainted with, it is evident that it was and still continues to be, a constant custom among the Indians to gather up the bones of the dead, and deposit them in a particular place. Thus, when they make peace with any nation with whom they have been at war, after burying the hatchet, they take up the belt of wampum, and say, ‘We now gather up all the bones of those who have been slain, and bury them,’ &c. See all the treaties of peace. Besides, it is customary when any of them die at a distance from home, to bury them, and afterwards to come and take up the bones and carry them home. At a treaty which was held at Lancaster with the Six Nations, one of them died, and was buried in the woods a little distance from the town. Some time after a party came and took up the body, separated the flesh from the bones by boiling and scraping them clean, and carried them to be deposited in the sepulchres of their ancestors. The operation was so offensive and disagreeable, that nobody could come near them while they were performing it.”—Charles Thomson in Appendix.

In the edition of 1853 is a footnote:

“In the notes on Virginia, the great diversity of languages appearing radically different, which are spoken by the red men of America, is supposed to authorize a supposition that their settlement is more remote than that of Asia by its red inhabitants; but it must be confessed that the mind finds it difficult to conceive that so many tribes have inhabited it from so remote an antiquity as would be necessary to have divided them into language so radically different. I will therefore hazard a conjecture as such, and only to be estimated at what it may be worth. We know that the Indians consider it as dishonorable to use any language but their own. Hence in their councils with us, though some of them may have been in situations which from convenience or necessity, have obliged them to learn our language well, yet they refuse to confer in it, and always insist on the intervention of an interpreter, though he may understand neither language so well as themselves; and this fact is as general as our knowledge of the tribes of North America. When therefore a fraction of a tribe from domestic feuds had broken off from its main body, to which it is held by no law or compact, and has gone to another settlement, may it not be the point of honor with them not to use the language of those with whom they have quarrelled, but to have one of their own. They have use but for few words, and possess but few. It would require but a small effort of the mind to invent these, and to acquire the habit of using them. Perhaps this hypothesis presents less difficulty than that of so many radically distinct languages, preserved by such handfuls of men, from an antiquity so remote that no data we possess will enable us to calculate it”

In the edition of 1787, and subsequent ones, the following paragraph is inserted:

“But imperfect as is our knowledge of the tongues spoken in America, it suffices to discover the following remarkable fact*: - Arranging them under the radical ones to which they may be palpably traced, and doing the same by those of the red men of Asia, there will be found probably twenty in America, for one in Asia, of those radical languages, so called because if they were ever the same they have lost all resemblance to one another. A separation into dialects may
be the work of a few ages only, but for two dialects to recede from one another till they have lost all vestiges of their common origin, must require an immense course of time; perhaps not less than many people give to the age of the earth. A greater number of those radical changes of language having taken place among the red men of America, proves them of greater antiquity than those of Asia.”

[1] “The Osweàtchies, Connosedàgoes and Cohunnegagoes, or as they are commonly called, Caghnewàgos, are of the Mingo or Six Nation Indians, who, by the influence of the French missionaries, have been separated from their nation, and induced to settle there.

“I do not know of what nation the Augquàgahs are, but suspect they are a family of the Senecas.

“The Nanticocks and Conòies were formerly of a nation that lived at the head of Chesapeake bay, and who, of late years, have been adopted into the Mingo or Iroquois confederacy, and make a seventh nation. The Monacans or Tuscaroras, who were taken into the confederacy in 1712, making the sixth.

“The Saponies are families of the Wanamies, who removed from New-Jersey, and with the Mohiccons, Munsies, and Delawares, belonging to the Lenopi nation. The Mingos are a war colony from the Six Nations; so are the Cohunnawagos.

“Of the rest of the Northern tribes I never have been able to learn anything certain. But all accounts seem to agree in this, that there is a very powerful nation, distinguished by a variety of names taken from the several towns or families, but commonly called Tawas or Ottawas, who speak one language, and live round and on the waters that fall into the western lakes, and extend from the waters of the Ohio quite to the waters falling into Hudson’s bay.”—Charles Thomson in Appendix.

[1] In the edition of 1853, a paragraph is here inserted, as follows:

“We are told that during a great storm on the 25th of December, 1798, the Syphon Fountain, near the mouth of the North Holston, ceased and a spring broke out about 100 feet higher up the hill.”* Syphon fountains have been explained by supposing the duct which leads from the reservoir to the surface of the earth to be in the form of a syphon, a, b, c, where it is evident that till the water rises in the reservoir to d, the level of the highest point of the syphon, it cannot flow through the duct, and it is known that when it once begins to flow it will draw off the water of the reservoir to the orifice a, of the syphon. If the duct be larger than the supply of the reservoir possibly the force of the waters and loosening of the earth by them, during the storm above mentioned, may have opened a more direct duct as from e to f, horizontally or declining, which issues higher up the hill than the one fed by the syphon. In that case it becomes a common spring. Should this duct be again closed or diminished by any new accident, and both springs be kept in action from the same reservoir.”
Monsieur Buffon has indeed given an afflicting picture of human nature in his description of the man of America. But sure I am there never was a picture more unlike the original. He grants indeed that his stature is the same as that of the man of Europe. He might have admitted, that the Iroquois were larger, and the Lenapi, or Delawares, taller than people in Europe generally are. But he says their organs of generation are smaller and weaker than those of Europeans. Is this a fact? I believe not; at least it is an observation I never heard before. — ‘They have no beard.’ Had he know the pains and trouble it cost the men to pluck out by the roots the hair that grows on their faces, he would have seen that nature had not been deficient in that respect. Every nation has its customs. I have see an Indian beau, with a looking-glass in his hand, examining his face for hours together, and plucking out by the roots every hair he could discover, with a kind of tweezer made of a piece of fine brass wire that had been twisted round a stick, and which he used with great dexterity. — ‘They have no ardor for their females.’ It is true they do not indulge those excesses, nor discover that fondness which is customary in Europe; but this is not owing to a defect in nature but to manners. Their soul is wholly bent upon war. This is what procures them glory among the men, and makes them the admiration of the women. To this they are educated from their earliest youth. When they pursue game with ardor, when they bear the fatigues of the chase, when they sustain and suffer patiently hunger and cold; it is not so much for the sake of the game they pursue, as to convince their parents and the council of the nation that they are fit to be enrolled in the number of the warriors. The songs of the women, the dance of the warriors, the sage council of the chiefs, the tales of the old, the triumphal entry of the warriors returning with success from battle, and the respect paid to those who distinguish themselves in war, and in subduing their enemies; in short, everything they see or hear tends to inspire them with an ardent desire for military fame. If a young man were to discover a fondness for women before he has been to war, he would become the contempt of the men, and the scorn and ridicule of the women. Or were he to indulge himself with a captive taken in war, and much more were he to offer violence in order to gratify his lust, he would incur indelible disgrace. The seeming frigidity of the men, therefore, is the effect of manners, and not a defect of nature. Besides, a celebrated warrior is oftener courted by the females, than he has occasion to court; and this is a point of honor which the men aim at. Instances similar to that of Ruth and Boaz are not uncommon among them. For though the women are modest and diffident, and so bashful that they seldom lift up their eyes, and scarce ever look a man full in the face, yet, being brought up in great subjection, custom and manners reconcile them to modes of acting, which, judged of by Europeans, would be deemed inconsistent with the rules of female decorum and propriety. I once saw a young widow, whose husband, a warrior, had died about eight days before, hastening to finish her grief, and who, by tearing her hair, beating her breast, and drinking spirits, made the tears flow in great abundance, in order that she might grieve much in a short space of time, and be married that evening to another young warrior. The manner in which this was viewed by the men and women of the tribe, who stood round, silent and solemn spectators of the scene, and the indifference with which they answered my question respecting it, convinced me that it was no unusual custom. I have known men advanced in years, whose wives were old and past childbearing, take young wives, and have children, though the practice of polygamy is not common. Does this savor of frigidity, or want of ardor for the female? Neither do they seem to be deficient in natural affection. I have seen both fathers and mothers in the deepest affliction,
when their children have been dangerously ill: though I believe the affection is stronger in the
descending than the ascending scale, and though custom forbids a father to grieve immoderately
for a son slain in battle. ‘That they are timorous and cowardly,’ is a character with which there is
little reason to charge them, when we recollect the manner in which the Iroquois met Monsieur
—, who marched into their country; in which the old men, who scorned to fly, or to survive the
capture of their town, braved death, like the old Romans in the time of the Gauls, and in which
they soon after revenged themselves by sacking and destroying Montreal. But above all, the
unshaken fortitude with which they bear the most excruciating tortures and death when taken
prisoners, ought to exempt them from that character. Much less are they to be characterized as a
people of no vivacity and who are excited to action or motion only by the calls of hunger and
thirst. Their dances in which they so much delight, and which to an European would be the most
severe exercise, fully contradicted this, not to mention their fatiguing marches, and the toil they
voluntarily and cheerfully undergo in their military expeditions. It is true, that when at home,
they do not employ themselves in labor or the culture of the soil; but this again is the effect of
customs and manners, which have assigned that to the province of the women. But it is said, they
are averse to society and a social life. Can anything be more inapplicable than this to a people
who always live in towns or clans? Or can they be said to have no ‘republic,’ who conduct all
their affairs in national councils, who pride themselves in their national character, who consider
an insult or injury done to an individual by a stranger as done to the whole, and resent it
accordingly? In short, this picture is not applicable to any nation of Indians I have ever known or
heard of in North America.”—Charles Thomson in Appendix.

In the edition of 1853, a footnote adds: “No writer equally with M. De Buffon, proves the power
of eloquence and uncertainty of theories. He takes any hypothesis whatever, or its reverse, and
furnishes explanations equally specious and persuasive. Thus in his xviii volume, wishing to
explain why the largest animals are found in the torrid zone, he assumes heat as the efficient
principle of the animal volume. Speaking of America, he says: ‘Le terre y est froide impuissante
a produire les principes actifs, a developer les germes des plus grandes quadrupedes auxquels il
faut, pour croitre et se multiplier, toute la chaleur toute l’activité que le soleil peut donner a la
terre amoureuse.” Page 156. “L’ardeur des hommes, et la grandeur des animaux dependent de la
salubrite, et de la chaleur de l’air,” Ib. 160. In his Epochs again when it is become convenient to
his theory to consider the bones of the mammoth found in the coldest regions, as the bones of the
elephant, and necessary to explain how the elephant there should have been six times as large as
that of the torrid zone, it is cold which produces animal volume. ‘Tout ce qu’il y a de colossal et
de grand dans la nature, a eté formé dans les terres du Nord.’ 1 Epoques, 255. ‘C’est dans les
regions de notre Nord que le nature vivante s’est elevee a ses plus grandes dimensions.’ Ib.,
263.”

[1]“As far as I have been able to learn, the country from the seacoast to the Alleghany, and from
the most southern waters of James River, now in the State of Maryland, was occupied by three
different nations of Indians, each of which spoke a different language, and were under separate
and distinct governments. What the original or real names of those nations were, I have not been
able to learn with certainty; but by us they are distinguished by the names of Powhatans,
Mannahoacs, now commonly called Tuscaroras. The Powhatans, who occupied the country from the sea shore up to the falls of the rivers, were a powerful nation, and seem to have consisted of seven tribes, five on the western and two on the eastern shore. Each of these tribes was subdivided into towns, families, or clans, who lived together. All the nations of Indians in North America lived in the hunter state, and depended for subsistence on hunting, fishing, and the spontaneous fruits of the earth, and a kind of grain which was planted and gathered by the women, and is now known by the name of Indian corn. Long potatoes, pumpkins of various kinds, and squashes, were also found in use among them. They had no flocks, herds, or tamed animals of any kind. Their government is a kind of patriarchal confederacy. Every town or family has a chief, who is distinguished by a particular title, and whom we commonly call ‘Sachem.’ The several towns or families that compose a tribe, have a chief who presides over it, and the several tribes composing a nation have a chief who presides over the whole nation. These chiefs are generally men advanced in years, and distinguished by their prudence and abilities in council. The matters which merely regard a town or family are settled by the chief and principal men of the town; those which regard a tribe, such as the appointment of head warriors or captains, and settling differences between different towns and families, are regulated at a meeting or council of the chiefs from the several towns; and those which regard the whole nation, such as the making war, concluding peace, or forming alliances with the neighboring nations, are deliberated on and determined in a national council composed of the chiefs of the tribe, attended by the head warriors and a number of the chiefs from the towns, who are his counsellors. In every town there is a council house, where the chief and old men of the town assemble, when occasion requires, and consult what is proper to be done. Every tribe has a fixed place for the chiefs of the towns to meet and consult on the business of the tribe; and in every nation there is what they call the central council house, or central council fire, where the chiefs of the several tribes, with the principal warriors, convene to consult and determine on their national affairs. When any matter is proposed in the national council, it is common for the chiefs of the several tribes to consult thereon apart with their counsellors, and when they have agreed, to deliver the opinion of the tribe at the national council; and, as their government seems to rest wholly on persuasion, they endeavor, by mutual concessions, to obtain unanimity. Such is the government that still subsists among the Indian nations bordering upon the United States. Some historians seem to think, that the dignity of office of Sachem was hereditary. But that opinion does not appear to be well founded. The sachem or chief of the tribe seems to be by election. And sometimes persons who are strangers, and adopted into the tribe, are promoted to this dignity, on account of their abilities. Thus on the arrival of Captain Smith, the first founder of the colony of Virginia, Opechancanough, who was Sachem or chief of the Chickahominies, one of the tribes of the Powhatans, is said to have been of another tribe, and even of another nation, so that no certain account could be obtained of his origin or descent. The chiefs of the nation seem to have been by a rotation among the tribes. Thus when Captain Smith, in the year 1609, questioned Powhatan (who was the chief of the nation, and whose proper name is said to have been Wahunsonacock) respecting the succession, the old chief informed him, ‘that he was very old, and had seen the death of all his people thrice;’ that not one of these generations were then living except himself; that he must soon die, and the succession descend in order to his brother Opichapan, Opechancanough, and Catataugh, and then to his two sisters, and their two
daughters.’ But these were appellations designating the tribes in the confederacy. For the persons named are not his real brothers, but the chiefs of different tribes. Accordingly in 1618, when Powhatan died, he was succeeded by Opichapan, and after his decease, Opechancanough became chief of the nation. I need only mention another instance to show that the chiefs of the tribes claimed this kindred with the head of the nation. In 1622, when Raleigh Crashaw was with Japazaw, the Sachem or chief of the Potomacs, Opechancanough, who had great power and influence, being the second man in the nation, and next in succession to Opichapan, and who was a bitter but secret enemy to the English, and wanted to engage his nation in a war with them, sent two baskets of beads to the Potomac chief, and desired him to kill the Englishman that was with him. Japazaw replied, that the English were his friends, and Opichapan his brother, and that therefore there should be no blood shed between them by his means. It is also to be observed, that when the English first came over, in all their conferences with any of the chiefs, they constantly heard him make mention of his brother, with whom he must consult, or to whom he referred them, meaning thereby either the chief of the nation, or the tribes in confederacy. The Manahoacks are said to have been a confederacy of four tribes, and in alliance with the Monacans, in the war which they were carrying on against the Powhatans.

“To the northward of these there was another powerful nation which occupied the country from the head of the Chesapeake bay up to the Kittatinney mountain, and as far eastward as Connecticut river, comprehending that part of New York which lies between the Highlands and the ocean, all the State of New Jersey, that part of Pennsylvania which is watered, below the range of the Kittatinney mountains, by the rivers or streams falling into the Delaware, and the county of Newcastle in the State of Delaware, as far as Duck creek. It is to be observed, that the nations of Indians distinguished their countries one from another by natural boundaries, such as ranges of mountains or streams of water. But as the heads of rivers frequently interlock, or approach near to each other, as those who live upon a stream claim the country watered by it, they often encroached on each other, and this is a constant source of war between the different nations. The nation occupying the tract of country last described, called themselves Lenopi. The French writers call them Loups; and among the English they are now commonly called Delawares. This nation or confederacy consisted of five tribes, who all spoke one language. 1. The Chihohocki, who dwelt on the west side of the river now called Delaware, a name which it took from Lord De la War, who put into it on his passage from Virginia in the year —, but which by the Indians was called Chihohocki. 2. The Wanami, who inhabit the country called New Jersey, from the Rariton to the sea. 3. The Munsey, who dwelt on the upper streams of the Delaware, from the Kittatinney mountains down to the Lehigh or western branch of the Delaware. 4. The Wabinga, who are sometimes called River Indians, sometimes Mohickanders, and who had their dwelling between the west branch of Delaware and Hudson’s river, from the Kittatinney Ridge down to the Rariton; and 5. The Mahiccon, or Manhattan, who occupied Staten Island, York Island (which from its being the principal seat of their residence was formerly called Manhattan), Long Island, and that part of New York and Connecticut which lies between Hudson and Connecticut rivers, from the highland, which is a continuation of the Kittatinney Ridge down to the Sound. This nation had a close alliance with the Shawanese, who lived on the Susquehanna and to the westward of that river, as far as the Alleghany mountains,
and carried on a long war with another powerful nation or confederacy of Indians, which lived to
the north of them between the Kittatinney mountains or highlands, and the Lake Ontario, and
who call themselves Mingoes, and are called by the French writers Iroquois, by the English the
Five Nations, and by the Indians to the southward, with whom they were at war, Massawomac.
This war was carrying on in its greatest fury, when Captain Smith first arrived in Virginia. The
Mingo Warriors had penetrated down the Susquehannah to the mouth of it. In one of his
excursions up the bay, at the mouth of the Susquehannah, in 1608, Captain Smith met with six or
seven of their canoes full of warriors, who were coming to attack their enemies in the rear. In an
excursion which he had made a few weeks before, up the Rappahannock, and in which he had a
skirmish with a party of the Manahoacs, and taken a brother of one of their chiefs prisoner, he
first heard of this nation. For when he asked the prisoner why his nation attacked the English?
the prisoner said, because his nation had heard that the English came from under the world to
take their world from them. Being asked, how many worlds he knew? he said, he knew but one,
which was under the sky that covered him, and which consisted of Powhats, the Manakins, and
the Massawomacs. Being questioned concerning the latter, he said, they dwelt on a great water to
the North, that they had many boats, and so many men, that they waged war with all the rest of
the world. The Mingo confederacy then consisted of five tribes; three who are the elder, to wit,
the Senecas, who live to the West, the Mohawks to the East, and the Onondagas between them;
and two who are called the younger tribes, namely, the Cayugas and Oneidas. All these tribes
speak one language, and were then united in a close confederacy, and occupied the tract of
country from the east end of Lake Erie to Lake Champlain, and from the Kittatinney and
Highlands to the Lake Ontario and the river Cadaraqui, or St. Lawrence. They had some time
before that, carried on a war with a nation, who lived beyond the lakes, and were called
Adirondacks. In this war they were worsted; but having made a peace with them, through the
intercession of the French who were then settling Canada, they turned their arms against the
Lenopi; and as this war was long and doubtful, they, in the course of it, not only exerted their
whole force, but put in practice every measure which prudence or policy could devise to bring it
to a successful issue. For this purpose they bent their course down the Susquehannah, and
warring with the Indians in their way, and having penetrated as far as the mouth of it, they, by
the terror of their arms, engaged a nation, now known by the name of Nanticocks, Conoys, and
Tuteloes, and who lived between Chesapeake and Delaware bays, and bordering on the tribe of
Chihohocki, to enter into an alliance with them. They also formed an alliance with the Monicans,
and stimulated them to a war with the Lenopi and their confederates. At the same time the
Mohawks carried on a furious war down the Hudson against the Mohiccons and River Indians,
and compelled them to purchase a temporary and precarious peace, by acknowledging them to be
their superiors, and paying an annual tribute. The Lenopi being surrounded with enemies, and
hard pressed, and having lost many of their warriors, were at last compelled to sue for peace,
which was granted to them on the condition that they should put themselves under the protection
of the Mingoes, confine themselves to raising corn, hunting for the subsistence of their families,
and no longer have the power of making war. This is what the Indians call making them women.
And in this condition the Lenopi were when William Penn first arrived and began the settlement
of Pennsylvania in 1682.”—Charles Thomson in Appendix.
In the edition of 1787, and subsequent ones, the following paragraph is inserted:

“But imperfect as is our knowledge of the tongues spoken in America, it suffices to discover the following remarkable fact*: Arranging them under the radical ones to which they may be palpably traced, and doing the same by those of the red men of Asia, there will be found probably twenty in America, for one in Asia, of those radical languages, so called because if they were ever the same they have lost all resemblance to one another. A separation into dialects may be the work of a few ages only, but for two dialects to recede from one another till they have lost all vestiges of their common origin, must require an immense course of time; perhaps not less than many people give to the age of the earth. A greater number of those radical changes of language having taken place among the red men of America, proves them of greater antiquity than those of Asia.”

A note to this new paragraph, as above starred, is: “See Pleasant’s Argus, August 16, ’99; that this disappeared December 25, ’98, on which day a spring broke out 100 feet higher up the hill.”

When Boaz had eaten and drank, and his heart was merry, he went to lie down at the end of the heap of corn; and Ruth came softly, and uncovered his feet, and laid her down. Ruth, iii. 7.

This is one generation more than the poet ascribes to the life of Nestor:

- Τοι [Editor: illegible character] [Editor: illegible character]δη δόο μέν γενεαὶ μερόπων ἀνθρώπων
- II. Hom. II. 250.
- Two generations now had passed away,
- Wise by his rules, and happy by his sway;
- Two ages o’er his native realm he reign’d,
- And now th’ example of the third remained.
- Pope.

“Mattere di Amer. Vesp. 81.—Ib. 11, 12, 4. Clavigero, 21.” Note in edition of 1853.
QUERY XII

A notice of the counties, cities, townships, and villages?

The counties have been enumerated under Query IX. They are 74 in number, of very unequal size and population. Of these 35 are on the tide waters, or in that parallel; 23 are in the Midlands, between the tide waters and Blue ridge of mountains; 8 between the Blue ridge and Alleghaney; and 8 westward of the Alleghaney.

The state, by another division, is formed into parishes, many of which are commensurate with the counties; but sometimes a county comprehends more than one parish, and sometimes a parish more than one county. This division had relation to the religion of the state, a Parson of the Anglican church, with a fixed salary, having been heretofore established in each parish. The care of the poor was another object of the parochial division.

We have no townships. Our country being much intersected with navigable waters, trade brought generally to our doors, instead of our being obliged to go in quest of it, has probably been one of the causes why we have no towns of any consequence. Williamsburg, which, till the year 1780, was the seat of our government, never contained above 1800 inhabitants; and Norfolk, the most populous town we ever had, contained but 6000. Our towns, but more properly our villages or hamlets, are as follows.

On James river and its waters, Norfolk, Portsmouth, Hampton, Suffolk, Smithfield, Williamsburg, Petersburg, Richmond, the seat of our government, Manchester, Charlottesville, New London.

On York river and its waters, York, Newcastle, Hanover.

On Rappahannoc, Urbanna, Portroyal, Fredericksburg, Falmouth.


On the Ohio, Louisville.

There are other places at which, like some of the foregoing, the laws have said there shall be towns; but Nature has said there shall not, and they remain unworthy of enumeration. Norfolk will probably be the emporium for all the trade of the Chesapeake bay and its waters; and a canal of 8 or 10 miles will bring to it all that of Albemarle sound and its waters. Secondary to this place, are the towns at the head of the tide waters, to wit, Petersburg on Appamattox; Richmond on James river; Newcastle on York river; Alexandria on Patowmac, and Baltimore on the Patapsco. From these the distribution will be to subordinate situations in the country. Accidental circumstances, however, may controul the indications of nature, and in no instance do they do it more frequently than in the rise and fall of towns.
QUERY XIII
The constitution of the State and its several charters?

Queen Elizabeth by her letters patent, bearing date March 25, 1584, licensed Sir Walter Raleigh to search for remote heathen lands, not inhabited by Christian people, and granted to him in fee simple, all the soil within 200 leagues of the places where his people should, within six years, make their dwellings or abid-[194] ings; reserving only to herself and her successors, their allegiance and one fifth part of all the gold and silver ore they should obtain. Sir Walter immediately sent out two ships, which visited Wococon island in North Carolina, and the next year despatched seven with 107 men, who settled in Roanoke island about latitude 35°. 50′. Here Okisko, king of the Weopomeics, in a full council of his people is said to have acknowledged himself the homager of the Queen of England, and, after her, of Sir Walter Raleigh. A supply of 50 men were sent in 1586, and 150 in 1587. With these last Sir Walter sent a Governor, appointed him twelve assistants, gave them a charter of incorporation, and instructed them to settle on Chesapeake bay. They landed, however, at Hatorask. In 1588, when a fleet was ready to sail with a new supply of colonists and necessaries, they were detained by the Queen to assist against the Spanish armada. Sir Walter having now expended 40,000/ in these enterprises, obstructed occasionally by the crown without a shilling of aid from it, was under a necessity of engaging others to adventure their money. He, therefore, by deed bearing date the 7th of [195] March 1589, by the name of Sir Walter Raleigh, Chief Governor of Assamàcomòc, (probably Acomàc,) alias Wingadacoia, alias Virginia, granted to Thomas Smith and others, in consideration of their adventuring certain sums of money, liberty to trade to this new country free from all customs and taxes for seven years, excepting the fifth part of the gold and silver ore to be obtained; and stipulated with them and the other assistants, then in Virginia, that he would confirm the deed of incorporation which he had given in 1587, with all the prerogatives, jurisdictions, royalties and privileges granted to him by the Queen. Sir Walter, at different times sent five other adventurers hither, the last of which was in 1602; for in 1603 he was attainted and put into close imprisonment, which put an end to his cares over his infant colony. What was the particular fate of the colonists he had before sent and seated, has never been known; whether they were murdered, or incorporated with the savages.

Some gentlemen and merchants, supposing that by the attainder of Sir Walter Raleigh the grant to him was forfeited, not enquiring over carefully whether the sentence of an [196] English court could affect lands not within the jurisdiction of that court, petitioned king James for a new grant of Virginia to them. He accordingly executed a grant to Sir Thomas Gates and others, bearing date the 9th of March, 1607, under which, in the same year, a settlement was affected at Jamestown, and ever after maintained. Of this grant, however, no particular notice need be taken, as it was superseded by letters patent of the same king, of May 23, 1609, to the Earl of Salisbury and others, incorporating them by the name of ‘The Treasurer and company of Adventurers and Planters of the City of London for the first colony in Virginia,’ granting to them and their successors all the lands in Virginia from Point Comfort along the sea-coast, to the northward 200 miles, and from the same point along the sea coast to the southward two hundred miles, and all the space from this precinct on the sea coast up into the land, West and North west, from sea to
sea, and the islands within one hundred miles of it, with all the commodities, jurisdictions, royalties, privileges, franchises, and pre-eminences, within the same, and thereto and theretobut, by sea and land, appertain-[197] in as ample manner as had before been granted to any adventurer; to be held of the king and his successors, in common soccage, yielding one-fifth part of the gold and silver ore to be therein found, for all manner of services; establishing a council in England for the direction of the enterprise, the members of which were to be chosen and displaced by the voice of the majority of the company and adventurers, and were to have the nomination and revocation of the governors, officers, and ministers, which by them should be thought needful for the colony, the power of establishing laws and forms of government and magistracy, obligatory not only within the colony, but also on the seas in going and coming to and from it; authorizing them to carry thither any persons who should consent to go, freeing them forever from all taxes and impositions on any goods or merchandise on importation into the colony, or exportation out of it, except the five per cent. due for customs on all goods imported into the British dominions, according to the ancient trade of merchants; which five per cent. only being paid they might, within 13 months, re-export the same goods [198] into foreign parts, without any custom, tax, or other duty, to the king or any his officers, or deputies; with powers of waging war against those who should annoy them; giving to the inhabitants of the colony all the rights of natural subjects, as if born and abiding in England; and declaring that these letters should be construed, in all doubtful parts, in such manner as should be most for the benefit of the grantees.

Afterwards on the 12th of March 1612, by other letters patent, the king added to his former grants, all islands in any part of the ocean between the 30th and 41st degrees of latitude, and within 300 leagues of any of the parts before granted to the treasurer and company not being possessed or inhabited by any other Christian prince or state, nor within the limits of the northern colony.

In pursuance of the authorities given to the company by these charters, and more especially of that part in the charter of 1609, which authorized them to establish a form of government, they on the 24th of July 1621, by charter under their common seal, declared that from thence forward there should be two supreme councils in Virginia, the one [199] to be called the council of state, to be placed and displaced by the treasurer, council in England, and company from time to time, whose office was to be that of assisting and advising the governor; the other to be called the general assembly, to be convened by the governor once yearly or oftener, which was to consist of the council of state, and two burgesses out of every town, hundred, or plantation, to be respectively chosen by the inhabitants. In this all matters were to be decided by the greater part of the votes present; reserving to the governor a negative voice; and they were to have power to treat, consult, and conclude all emergent occasions concerning the public weal, and to make laws for the behoof and government of the colony, imitating and following the laws and policy of England as nearly as might be; providing that these laws should have no force till ratified in a general quarter court of the company in England, and returned under their common seal; and declaring that, after the government of the colony should be well framed and settled, no orders of the council in England should bind the colony unless ratified in the said [200] general assembly.
The king and company quarrelled, and by a mixture of law and force, the latter were ousted of all their rights without retribution, after having expended 100,000£ in establishing the colony, without the smallest aid from government. King James suspended their powers by proclamation of July 15, 1624, and Charles I. took the government into his own hands. Both sides had their partisans in the colony: but, in truth, the people of the colony in general thought themselves little concerned in the dispute. There being three parties interested in these several charters, what passed between the first and second, it was thought could not affect the third. If the king seized on the powers of the company, they only passed into other hands, without increase or diminution, while the rights of the people remained as they were. But they did not remain so long. The northern parts of their country were granted away to the lords Baltimore and Fairfax; the first of these obtaining also the rights of separate jurisdiction and government. And in 1650 the parliament, considering itself as standing in the place of their deposed king, and as having succeeded [201] to all his powers, without as well as within the realm, began to assume a right over the colonies, passing an act for inhibiting their trade with foreign nations. This succession to the exercise of kingly authority gave the first color for parliamentary interference with the colonies, and produced that fatal precedent which they continued to follow, after they had retired, in other respects, within their proper functions. When this colony, therefore, which still maintained its opposition to Cromwell and the parliament, was induced in 1651 to lay down their arms, they previously secured their most essential rights by a solemn convention, which, having never seen in print, I will here insert literally from the records.

“ARTICLES agreed on & concluded at James Cittie in Virginia for the surrendering and settling of that plantation under ye obedience and government of the commonwealth of England by the commissioners of the Councill of State by authoritie of the parliamt of England, and by the Grand assembly of the Governour, Councill, & Burgesses of that countrey. [202]

“First it is agreed & consted that the plantation of Virginia, & all the inhabitants thereof, shall be and remaine in due obedience and subjection to the Comonwealth of England, according to ye lawes there established, and that thi submission and subscription bee acknowledged a voluntary act not forced nor constrained by a conquest upon the countrey, and that they shall have and enjoy such freedoms and priviledges as belong to the free borne people of England, and that the former government by the Commissions and Instructions be void and null.

“2ly, Secondly, that the Grand assembly as formerly shall convene & transact the affairs of Virginia, wherein nothing is to be acted or done contrarie to the government of the Comonwealth of England & the lawes there established.

“3ly, That there shall be a full and totall remission and indemnptitie of all acts, words, or writeings done or spoken against the parliament of England in relation to the same.

“4ly, That Virginia shall have & enjoy ye antient bounds and lymitts granted by [203] the charters of the former kings, and that we shall seek a new charter from the parliament to that purpose against any that have intrencht upon ye rights thereof.
“5ly, That all the pattents of land granted under the collony seale by any of the precedent governours shall be & remaie in their full force & strength.

“6ly, That the priviledge of haveing ffiftie acres of land for every person transported in that collonie shall continue as formerly granted.

“7ly, That ye people of Virginia have free trade as ye people of England do enjoy to all places and with all nations according to ye lawes of that commonwealth, and that Virginia shall enjoy all priviledges equall with any English plantations in America.

“8ly, That Virginia shall be free from all taxes, customs & impositions whatsoever, & none to be imposed on them without consent of the Grand assembly. And soe that neither fforts nor castles bee erected or garrisons maintained without their consent.

“9ly, That noe charge shall be required from this country in respect of this present ffleet. [204]

“10ly, That for the future settlement of the countrey in their due obedience, the Engagement shall be tendred to all ye inhabitants according to act of parliament made to that purpose, that all persons who shall refuse to subscribe the said engagement, shall have a yeare’s time if they please to remove themselves and their estates out of Virginia, & in the meantime during the said yeare to have equall justice as formerly.

“11ly, That ye use of the booke of common prayer shall be permitted for one yeare ensueinge with referrence to the consent of ye major part of the parishes, provided that those which relate to kingshipp or that government be not used publiquely, and the continuance of ministers in their places, they not misdemeaning themselves, and the payment of their accustomed dues and agreements made with them respectively shall be left as they now stand dureing this ensueing yeare.

“12ly, That no man’s cattell shall be questioned as ye companies, unles such as have been entrusted with them or have disposed of them without order. [205]

“13ly, That all ammunition, powder and armes, other than for private use, shall be delivered up, securitie being given to make satisfactio

“14ly, That all goods all readie brought hither by ye Dutch or others which are now on shoar shall be free from surprizall.

“15ly, That the quittrents granted unto us by the late kinge for seaven yeares bee confirmed.

“16ly, That ye commissioners for the parliament subscribeing these articles engage themselves & the honour of parliament for the full performance thereof: and that the present governour, & ye councill, and the burgesses do likewise subscribe and engage the whole collony on their parts.

Wm. Claiborne.—Seale.

Edmond Curtis.—Seale.

“Theise articles were signed and sealed by the Commissioners of the Councill of state for the Commonwealth of England the twelveth day of March 1651.”

Then follow the articles stipulated by the governor and council, which relate merely [206] to their own persons and property, and then the ensuing instrument:

“An act of indemnity made att the surrender of the countrey.

“Whereas, by the authoritie of the parliament of England wee the commissioners appointed by the councill of state authorized thereto, having brought a ffleet and force before James cittie in Virginia to reduce that collonie under the obedience of the commonwealth of England, and finding force raised by the Governour and countrey to make opposition against the said ffleet, whereby assured danger appearinge of the ruine and destruction of the plantation, for prevention whereof the burgesses of all the severall plantations being called to advise and assist therein, upon long and serious debate, and in sad contemplation of the greate miseries and certaine destruction which were soe neerely hovering over the whole countrey; Wee the said Commissioners have thought fitt and condescending and granted to signe and confirme under our hands, seales and by our oath, Articles bearing date with theise presents, and do further declare that by the authoritie of the par-[207] liament and commonwealth of England derived unto us their commissioners, that according to the articles in generall wee have granted an act of indemnity and oblivion to all the inhabitants of this colloney from all words, actions, or writings that have been spoken acted or writt against the parliament or comonwealth of England or any other person from the beginning of the world to this daye. And this we have done that all the inhabitants of the collonie may live quietly and securely under the comonwealth of England. And we do promise that the parliament and commonwealth of England shall confirm and make good all those transactions of ours. Witenes our hands and seales this 12th of March 1651.

Richard Bennett.—Seale.

William Claiborne.—Seale.

Edmond Curtis.—Seale.

The colony supposed, that, by this solemn convention, entered into with arms in their hands, they had secured the antient limits1 of their country, its free trade2 its exemption from taxation3 but by their own [208] assembly, and exclusion of military force4 from among them. Yet in every of these points was this convention violated by subsequent kings and parliaments, and other
infractions of their constitution, equally dangerous, committed. Their General Assembly, which
was composed of the council of state and burgesses, sitting together and deciding by plurality of
voices, was split into two houses, by which the council obtained a separate negative on their
laws. Appeals from their supreme court, which had been fixed by law in their general assembly,
were arbitrarily revoked to England, to be there heard before the king and council. Instead of
four hundred miles on the seacoast, they were reduced, in the space of thirty years, to about one
hundred miles. Their trade with foreigners was totally suppressed, and when carried to Great
Britain, was there loaded with imposts. It is unnecessary, however, to glean up the several
instances of injury, as scattered through American and British history, and the more especially
as, by [209] passing on to the accession of the present king, we shall find specimens of them all,
aggravated, multiplied and crouded within a small compass of time, so as to evince a fixed
design of considering our rights natural, conventional and chartered as mere nullities. The
following is an epitome of the first sixteen years of his reign. The colonies were taxed internally
and externally; their essential interests sacrificed to individuals in Great Britain; their legislatures
suspended; charters annulled; trials by juries taken away; their persons subjected to
transportation across the Atlantic, and to trial before foreign judicatories; their supplications for
redress thought beneath answer; themselves published as cowards in the councils of their mother
country and courts of Europe; armed troops sent among them to enforce submission to these
violences; and actual hostilities commenced against them. No alternative was presented but
resistance, or unconditional submission. Between these could be no hesitation. They closed in the
appeal to arms. They declared themselves independent states. They confederated together into
one great republic; thus securing to [210] every state the benefit of an union of their whole force.
In each state separately a new form of government was established. Of ours particularly the
following are the outlines. The executive powers are lodged in the hands of a governor, chosen
annually, and incapable of acting more than three years in seven. He is assisted by a council of
eight members. The judiciary powers are divided among several courts, as will be hereafter
explained. Legislation is exercised by two houses of assembly, the one called the house of
delegates, composed of two members from each county, chosen annually by the citizens,
possessing an estate for life in 100 acres of uninhabited land, or 25 acres with a house on it, or in
a house or lot in some town: the other called the Senate, consisting of 24 members, chosen
quadrennially by the same electors, who for this purpose are distributed into 24 districts. The
concurrence of both houses is necessary to the passage of a law. They have the appointment of
the governor and council, the judges of the superior courts, auditors, attorney general, treasurer,
register of the land office, and delegates to congress. As the dismemberment of the state had
never had its con-[211] firmation, but, on the contrary, had always been the subject of
protestation and complaint, that it might never be in our own power to raise scruples on that
subject, or to disturb the harmony of our new confederacy, the grants to Maryland, Pennsylvania
and the two Carolinas were ratified.

This constitution was formed when we were new and unexperienced in the science of
government. It was the first, too, which was formed in the whole United States. No wonder then
that time and trial have discovered very capital defects in it.
1. The majority of the men in the state, who pay and fight for its support, are unrepresented in the legislature, the roll of freeholders entitled to vote not including generally the half of those on the roll of the militia, or of the tax-gatherers.

2. Among those who share the representation, the shares are very unequal. Thus the county of Warwick, with only one hundred fighting men, has an equal representation with the county of Loudon, which has 1746. So that every man in Warwick has as much influence in the government as 17 men in Loudon. But lest it should be thought that an equal interspersion of small among large coun-[212] ties, through the whole state, may prevent any danger of injury to particular parts of it, we will divide it into districts, and shew the proportions of land, of fighting men, and of representation in each:

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<tr>
<td>Of these, 542 are on the eastern shore.—<em>T. J.</em></td>
<td></td>
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<tr>
<td>Of these, 22,616 are Eastward of the meridian of the mouth of the Great Kanhaway.—<em>T. J.</em></td>
<td></td>
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</tr>
<tr>
<td>Between the sea - coast and falls of the rivers</td>
<td>111,205</td>
<td>19,012</td>
<td>71</td>
</tr>
<tr>
<td>Between the falls of the rivers and Blue Ridge of mountains</td>
<td>18,759</td>
<td>18,828</td>
<td>46</td>
</tr>
<tr>
<td>Between the Blue Ridge and the Alleghany</td>
<td>11,911</td>
<td>7,673</td>
<td>16</td>
</tr>
<tr>
<td>Between the Alleghany and Ohio</td>
<td>279,650</td>
<td>4,458</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>121,525</td>
<td>49,971</td>
<td>149</td>
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An inspection of this table will supply the place of commentaries on it. It will appear at once that nineteen thousand men, living below the falls of the rivers, possess half of the senate, and want four members only of possessing a majority of the house of delegates; a want more than supplied by the vicinity of their situation to the seat of government, and of course the greater degree of convenience and punctuality with which [213] their members may and will attend in the legislature. These nineteen thousand, therefore, living in one part of the country, give law to upwards of thirty thousand living in another, and appoint all their chief officers executive and judiciary. From the difference of their situation and circumstances, their interests will often be very different.

3. The senate is, by its constitution, too homogenous with the house of delegates. Being chosen by the same electors, at the same time, and out of the same subjects, the choice falls of course on men of the same description. The purpose of establishing different houses of legislation is to introduce the influence of different interests or different principles. Thus in Great Britain it is said their constitution relies on the house of commons for honesty, and the lords for wisdom; which would be a rational reliance, if honesty were to be bought with money, and if wisdom were hereditary. In some of the American States, the delegates and senators are so chosen, as that the first represent the persons, and the second the property of the State. But with us, wealth and
wisdom have equal chance for admission into both houses. We do not [214], therefore, derive from the separation of our legislature into two houses, those benefits which a proper complication of principles is capable of producing, and those which alone can compensate the evils which may be produced by their dissensions.

4. All the powers of government, legislative, executive, and judiciary, result to the legislative body. The concentrating these in the same hands is precisely the definition of despotic government. It will be no alleviation that these powers will be exercised by a plurality of hands, and not by a single one. 173 despots would surely be as oppressive as one. Let those who doubt it turn their eyes on the republic of Venice. As little will it avail us that they are chosen by ourselves. An elective despotism was not the government we fought for, but one which should not only be founded on free principles, but in which the powers of government should be so divided and balanced among several bodies of magistracy, as that no one could transcend their legal limits, without being effectually checked and restrained by the others. For this reason that convention, which passed the ordinance of government [215] laid its foundation on this basis, that the legislative, executive and judiciary departments should be separate and distinct, so that no person should exercise the powers of more than one of them at the same time. But no barrier was provided between these several powers. The judiciary and executive members were left dependent on the legislative, for their subsistence in office, and some of them for their continuance in it. If therefore the legislature assumes executive and judiciary powers, no opposition is likely to be made; nor, if made, can it be effectual; because in that case they may put their proceedings into the form of an act of assembly, which will render them obligatory on the other branches. They have accordingly in many instances, decided rights which should have been left to judiciary controversy: and the direction of the executive, during the whole time of their session, is becoming habitual and familiar. And this is done with no ill intention. The views of the present members are perfectly upright. When they are led out of their regular province, it is by art in others, and inadvertence in themselves. And this will probably be the case for some [216] time to come. But it will not be a very long time. Mankind soon learn to make interested uses of every right and power which they possess, or may assume. The public money and public liberty, intended to have been deposited with three branches of magistracy, but found inadvertently to be in the hands of one only, will soon be discovered to be sources of wealth and dominion to those who hold them; distinguished, too, by this tempting circumstance, that they are the instrument, as well as the object, of acquisition. With money we will get men, said Caesar, and with men we will get money. Nor should our assembly be deluded by the integrity of their own purposes, and conclude that these unlimited powers will never be abused, because themselves are not disposed to abuse them. They should look forward to a time, and that not a distant one, when a corruption in this, as in the country from which we derive our origin, will have seized the heads of government, and be spread by them through the body of the people; when they will purchase the voices of the people, and make them pay the price. Human nature is the same on every side of the Atlantic-[217]tic, and will be alike influenced by the same causes. The time to guard against corruption and tyranny, is before they shall have gotten hold of us. It is better to keep the wolf out of the fold, than to trust to drawing his teeth and talons after he shall have entered. To render these considerations the more cogent, we must observe in addition:

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5. That the ordinary legislature may alter the constitution itself. On the discontinuance of assemblies, it became necessary to substitute in their place some other body, competent to the ordinary business of government, and to the calling forth the powers of the State for the maintenance of our opposition to Great Britain. Conventions were therefore introduced, consisting of two delegates from each county, meeting together and forming one house, on the plan of the former house of Burgesses, to whose places they succeeded. These were at first chosen anew for every particular session. But in March 1775, they recommended to the people to choose a convention, which should continue in office a year. This was done, accordingly, in April 1775, and in the July following that convention passed an ordinance for the election of delegates in the month of April annually. It is well known, that in July 1775, a separation from Great Britain and establishment of republican government, had never yet entered into any person’s mind. A convention, therefore, chosen under that ordinance, cannot be said to have been chosen for the purposes which certainly did not exist in the minds of those who passed it. Under this ordinance, at the annual election in April 1776, a convention for the year was chosen. Independance, and the establishment of a new form of government, were not even yet the objects of the people at large. One extract from the pamphlet called Common sense had appeared in the Virginia papers in February, and copies of the pamphlet itself had got in a few hands. But the idea had not been opened to the mass of the people in April, much less can it be said that they had made up their minds in its favor. So that the electors of April 1776, no more than the legislators of July 1775, not thinking of independance and a permanent republic, could not mean to vest in these delegates powers of establishing them, or any authorities other than those of the ordinary legislature. So far as a temporary organization of government was necessary to render our opposition energetic, so far their organization was valid. But they received in their creation no powers but what were given to every legislature before and since. They could not, therefore, pass an act transcendent to the powers of other legislatures. If the present assembly pass an act, and declare it shall be irrevocable by subsequent assemblies, the declaration is merely void, and the act repealable, as other acts are. So far, and no farther authorized, they organized the government by the ordinance entitled a Constitution or Form of government. It pretends to no higher authority than the other ordinance of the same session; it does not say that it shall be perpetual; that it shall be unalterable by other legislatures; that it shall be transcendent above the powers of those who they knew would have equal power with themselves. Not only the silence of the instrument is a proof they thought it would be alterable, but their own practice also; for this very convention, meeting as a House of Delegates in General assembly with the Senate in the autumn of that year, passed acts of assembly in contradiction of their ordinance of government; and every assembly from that time to this has done the same. I am safe therefore in the position that the constitution itself is alterable by the ordinary legislature. Though this opinion seems founded on the first elements of common sense, yet is the contrary maintained by some persons. I. Because, say they, the conventions were vested with every power necessary to make effectual opposition to Great Britain. But to complete this argument, they must go on, and say further, that effectual opposition could not be made to Great Britain without establishing a form of government perpetual and unalterable by the legislature; which is not true. An opposition which at some time or other was to come to an end, could not need a perpetual institution to carry it on: and a government amendable as its defects should be discovered, was
likely to make effectual resistance, as one that should be unalterably wrong. Besides, the assemblies were as much vested with all powers requisite for resistance as the Conventions were. If therefore these powers included that of modelling the form [221] of government in the one case, they did so in the other. The assemblies then as well as the conventions may model the government; that is, they may alter the ordinance of government. 2. They urge that if the convention had meant that this instrument should be alterable, as their other ordinances were, they would have called it an ordinance; but they have called it a constitution, which ex vi termini, means "an act above the power of the ordinary legislature." I answer that constitutio, constitutum, statutum, lex, are convertible terms. "Constitutio dicitur jus quod a principe conditur." "Constitutum, quod ab imperatoribus rescriptum statutumve est." "Statutum, idem quod lex." Calvini Lexicon juridicum. Constitution and statute were originally terms of the civil law, and from thence introduced by Ecclesiastics into the English law. Thus in the statute 25 Hen. VIII. c. 19, §. 1, "Constitutions and ordinances" are used as synonymous. The term constitution has many [222] other significations in physics and politics; but in Jurisprudence, whenever it is applied to any act of the legislature, it invariably means a statue, law, or ordinance, which is the present case. No inference then of a different meaning can be drawn from the adoption of this title: on the contrary, we might conclude that, by their affixing to it a term synonymous with ordinance or statute, they meant it to be an ordinance or statute. But of what consequence is their meaning, where their power is denied? If they meant to do more than they had power to do, did this give them power? It is not the name, but the authority which renders an act obligatory. Lord Coke says, ‘an article of the statute, 11. R. II. c. 5. that no person should attempt to revoke any ordinance then made, is repealed, for that such restraint is against the jurisdiction and power of the parliament.’ 4. inst. 42. and again, ‘though divers parliaments, have attempted to restrain subsequent parliaments, yet could they never effect it; for the latter parliament hath ever power to abrogate, suspend, qualify, explain, or make void the former in the whole or in [223] any part thereof, notwithstanding any words of restraint, prohibition, or penalty, in the former; for it is a maxim in the laws of the parliament, ‘quod leges posteriores priores contrarias abrogant.’ 4. inst. 43.—To get rid of the magic supposed to be in the word constitution, let us translate it into its definition as given by those who think it above the power of the law; and let us suppose the convention, instead of saying, ‘We the ordinary legislature, establish a constitution,’ had said, ‘We the ordinary legislature, establish an act above the power of the ordinary legislature.’ Does not this expose the absurdity of the attempt? 3. But, say they, the people have acquiesced, and this has given it an authority superior to the laws. It is true that the people did not rebel against it: and was that a time for the people to rise in rebellion? Should a prudent acquiescence, at a critical time, be construed into a confirmation of every illegal thing done during that period? Besides, why should they rebel? At an annual election they had chosen delegates for the year, to exercise the ordinary powers of legislation, and to manage the great contest in which they were engaged. These [224] delegates thought the contest would be best managed by an organized government. They therefore, among others, passed an ordinance of government. They did not presume to call it perpetual and unalterable. They well knew they had no power to make it so; that our choice of them had been for no such purpose, and at a time when we could have no such purpose in contemplation. Had an unalterable form of government been meditated, perhaps we should have chosen a different set of people. There was no cause then for
the people to rise in rebellion. But to what dangerous lengths will this argument lead? Did the acquiescence of the colonies under the various acts of power exercised by Great Britain in our infant state, confirm these acts, and so far invest them with the authority of the people as to render them unalterable, and our present resistance wrong? On every unauthorized exercise of power by the legislature must the people rise in rebellion, or their silence be construed into a surrender of that power to them? If so, how many rebellions should we have had already? One certainly for every session of assembly. The other states in the union have been of opinion that to render a form of government unalterable by ordinary acts of assembly, the people must delegate persons with special powers. They have accordingly chosen special conventions to form and fix their governments. The individuals then who maintain the contrary opinion in this country, should have the modesty to suppose it possible that they may be wrong, and the rest of America right. But if there be only a possibility of their being wrong, if only a plausible doubt remains of the validity of the ordinance of government, is it not better to remove that doubt by placing it on a bottom which none will dispute? If they be right we shall only have the unnecessary trouble of meeting once in convention. If they be wrong, they expose us to the hazard of having no fundamental rights at all. True it is, this is no time for deliberating on forms of government. While an enemy is within our bowels, the first object is to expel him. But when this shall be done, when peace shall be established, and leisure given us for intrenching within good forms, the rights for which we have bled, let no man be found indolent enough to decline a little more trouble for placing them beyond the reach of question. If anything more be requisite to produce a conviction of the expediency of calling a convention at a proper season to fix our form of government, let it be the reflection:

6. That the assembly exercises a power of determining the quorum of their own body which may legislate for us. After the establishment of the new form they adhered to the *Lex majoris partis*, founded in common law as well as common right. It is the natural law of every assembly of men, whose numbers are not fixed by any other law. They continued for some time to require the presence of a majority of their whole number, to pass an act. But the British parliament fixes its own quorum; our former assemblies fixed their own quorum; and one precedent in favor of power is stronger than an hundred against it. The house of delegates, therefore, have lately voted that, during the present dangerous invasion, forty members shall be a house to proceed to business. They have been moved to this by the fear of not being able to collect a house. But this danger could not authorize them to call that a house which was none; and if they may fix it at one number, they may at another, till it loses its fundamental character of being a representative body. As this vote expires with the present invasion, it is probable the former rule will be permitted to revive; because at present no ill is meant. The power, however, of fixing their own quorum has been avowed, and a precedent set. From forty it may be reduced to four, and from four to one; from a house to a committee, from a committee to a chairman or speaker, and thus an oligarchy or monarchy be substituted under forms supposed to be regular. ‘Omnia mala exempla ex bonis orta sunt; sed ubi imperium ad ignaros aut minus bonos pervenit, novum illud exemplum ab dignis et idoneis ad indignos et non idoneos fertur.’ When, therefore, it is considered, that there is no legal obstacle to the assumption by the assembly of all the powers legislative, executive, and judiciary, [228] and that these may come to the hands of the smallest
rag of delegation, surely the people will say, and their representatives, while yet they have honest representatives, will advise them to say, that they will not acknowledge as laws any acts not considered and assented to by the major part of their delegates.

In enumerating the defects of the constitution, it would be wrong to count among them what is only the error of particular persons. In December 1776, our circumstances being much distressed, it was proposed in the house of delegates to create a dictator, invested with every power legislative, executive, and judiciary, civil and military, of life and of death, over our persons and over our properties: and in June 1781, again under calamity, the same proposition was repeated, and wanted a few votes only of being passed. One who entered into this contest from a pure love of liberty, and a sense of injured rights, who determined to make every sacrifice, and to meet every danger, for the re-establishment of those rights on a firm basis, who did not mean to expend his blood and substance for the wretched purpose of changing this master for that, but to place the powers of governing him in a plurality of hands of his own choice, so that the corrupt will of no one man might in future oppress him, must stand confounded and dismayed when he is told, that a considerable portion of that plurality had meditated the surrender of them into a single hand, and, in lieu of a limited monarch, to deliver him over to a despotic one! How must he find his efforts and sacrifices abused and baffled, if he may still, by a single vote, be laid prostrate at the feet of one man! In God’s name, from whence have they derived this power? Is it from our ancient laws? None such can be produced. Is it from any principle in our new constitution expressed or implied? Every lineament of that expressed or implied, is in full opposition to it. Its fundamental principle is, that the state shall be governed as a commonwealth. It provides a republican organization, proscribes under the name of prerogative the exercise of all powers undefined by the laws; places on this basis the whole system of our laws; and by consolidating them together, chooses that they shall be left to stand or fall together, never providing for any circumstances, nor admitting that such could arise, wherein either should be suspended; no, not for a moment. Our antient laws expressly declare, that those who are but delegates themselves shall not delegate to others powers which require judgment and integrity in their exercise. Or was this proposition moved on a supposed right in the movers, of abandoning their posts in a moment of distress? The same laws forbid the abandonment of that post, even on ordinary occasions; and much more a transfer of their powers into other hands and other forms, without consulting the people. They never admit the idea that these, like sheep or cattle, may be given from hand to hand without an appeal to their own will.—Was it from the necessity of the case? Necessities which dissolve a government, do not convey its authority to an oligarchy or a monarchy. They throw back, into the hands of the people, the powers they had delegated, and leave them as individuals to shift for themselves. A leader may offer, but not impose himself, nor be imposed on them. Much less can their necks be submitted to his sword, their breath be held at his will or caprice. The necessity which should operate these tremendous effects should at least be palpable and irresistible. Yet in both instances, where it was feared, or pretended with us, it was belied by the event. It was belied, too, by the preceding experience of our sister states, several of whom had grappled through greater difficulties without abandoning their forms of government. When the proposition was first made, Massachusets had found even the government of committees sufficient to carry them through an invasion. But we at the time of that
proposition, were under no invasion. When the second was made, there had been added to this
example those of Rhode-Island, New-York, New-Jersey, and Pennsylvaniam, in all of which the
republican form had been found equal to the task of carrying them through the severest trials. In
this state alone did there exist so little virtue, that fear was to be fixed in the hearts of the people,
and to become the motive of their exertions, and the principle of their government? The very
thought alone was treason against the people; was treason against mankind in general; as
rivetting forever the chains which bow down their necks by giving to their oppressors a
proof, which they would have trumpeted through the universe, of the imbecility of republican
government, in times of pressing danger, to shield them from harm. Those who assume the right
of giving away the reins of government in any case, must be sure that the herd, whom they hand
on to the rods and hatchet of the dictator, will lay their necks on the block when he shall nod to
them. But if our assemblies supposed such a resignation in the people, I hope they mistook their
character. I am of opinion, that the government, instead of being braced and invigorated for
greater exertions under their difficulties, would have been thrown back upon the bungling
machinery of county committees for administration, till a convention could have been called, and
its wheels again set into regular motion. What a cruel moment was this for creating such an
embarrassment, for putting to the proof the attachment of our countrymen to republican
government! Those who meant well, of the advocates for this measure, (and most of them meant
well, for I know them personally, had been their fellow-labourers in the common cause, and had
often proved the purity of their principles,) had been seduced in their judgment by the
example of an antient republic, whose constitution and circumstances were fundamentally
different. They had sought this precedent in the history of Rome, where alone it was to be found,
and where at length, too, it had proved fatal. They had taken it from a republic rent by the most
bitter factions and tumults, where the government was of a heavy-handed unfeeling aristocracy,
over a people ferocious, and rendered desperate by poverty and wretchedness; tumults which
could not be allayed under the most trying circumstances, but by the omnipotent hand of a single
despot. Their constitution, therefore, allowed a temporary tyrant to be erected, under the name of
a Dictator; and that temporary tyrant, after a few examples, became perpetual. They misapplied
this precedent to a people mild in their dispositions, patient under their trial, united for the public
liberty, and affectionate to their leaders. But if from the constitution of the Roman government
there resulted to their Senate a power of submitting all their rights to the will of one man, does it
follow that the assembly of Virginia have the same authority? What clause in our
constitution has substituted that of Rome, by way of residuary provision, for all cases not
otherwise provided for? Or if they may step ad libitum into any other form of government for
precedents to rule us by, for what oppression may not a precedent be found in this world of the
bellum omnium in omnia? Searching for the foundations of this proposition, I can find none
which may pretend a colour of right or reason, but the defect before developed, that there being
no barrier between the legislative, executive, and judiciary departments, the legislature may seize
the whole: that having seized it, and possessing a right to fix their own quorum, they may reduce
that quorum to one, whom they may call a chairman, speaker, dictator, or by any other name they
please.—Our situation is indeed perilous, and I hope my countrymen will be sensible of it, and
will apply, at a proper season, the proper remedy; which is a convention to fix the constitution, to
amend its defects, to bind up the several branches of government by certain laws, which, when
they transgress, their acts shall [235] become nullities; to render unnecessary an appeal to the people, or in other words a rebellion, on every infraction of their rights, on the peril that their acquiescence shall be construed into an intention to surrender those rights.
QUERY XIV
The administration of justice and the description of the laws?

The state is divided into counties. In every county are appointed magistrates, called justices of the peace, usually from eight to thirty or forty in number, in proportion to the size of the county, of the most discreet and honest inhabitants. They are nominated by their fellows, but commissioned by the governor, and act without reward. These magistrates have jurisdiction both criminal and civil. If the question before them be a question of law only, they decide on it themselves; but if it be a fact, or of fact and law combined, it must be referred to a jury. In the latter case, of a combination of law and fact, it is usual for the jurors to decide [236] the fact, and to refer the law arising on it to the decision of the judges. But this division of the subject lies with their discretion only. And if the question relate to any point of public liberty, or if it be one of those in which the judges may be suspected of bias, the jury undertake to decide both law and fact. If they be mistaken, a decision against right, which is casual only, is less dangerous to the state, and less afflicting to the loser, than one which makes part of a regular and uniform system. In truth, it is better to toss up cross and pile in a cause, than to refer it to a judge whose mind is warped by any motive whatever, in that particular case. But the common sense of twelve honest men gives still a better chance of just decision, than the hazard of cross and pile. These judges execute their process by the sheriff or coroner of the county, or by constables of their own appointment. If any free person commit an offence against the commonwealth, if it be below the degree of felony, he is bound by a justice to appear before their court, to answer it on indictment or information. If it amount to felony, he is committed to jail; a court of these justices [237] is called; if they on examination think him guilty, they send him to the jail of the general court, before which court he is to be tried first by a grand jury of 24, of whom 13 must concur in opinion; if they find him guilty, he is then tried by a jury of 12 men of the county where the offence was committed, and by their verdict, which must be unanimous, he is acquitted or condemned without appeal. If the criminal be a slave, the trial by the county court is final. In every case, however, except that of high treason, there resides in the governor a power of pardon. In high treason the pardon can only flow from the general assembly. In civil matters these justices have jurisdiction in all cases of whatever value, not appertaining to the department of the admiralty. This jurisdiction is twofold. If the matter in dispute be of less value than 4½ dollars, a single member may try it at any time and place within his county, and may award execution on the goods of the party cast. If it be of that or greater value, it is determinable before the county court, which consists of four at the least of those justices and assembles at the court-house of the county on a certain day [238] in every month. From their determination, if the matter be of the value of ten pounds sterling, or concern the title or bounds of lands, an appeal lies to one of the superior courts.

There are three superior courts, to wit, the high court of chancery, the general court, and court of admiralty. The first and second of these receive appeals from the county courts, and also have original jurisdiction, where the subject of controversy is of the value of ten pounds sterling, or where it concerns the title or bounds of lands. The jurisdiction of the admiralty is original altogether. The high court of chancery is composed of three judges, the general court of five, and
the court of admiralty of three. The two first hold their sessions at Richmond at stated times, the
canchery twice in the year, and the general court twice for business civil and criminal, and twice
more for criminal only. The court of admiralty sits at Williamsburg whenever a controversy
arises.

There is one supreme court, called the court of appeals, composed of the judges of the three
superior courts, assembling twice a year at stated times at Richmond. This court [239] receives
appeals in all civil cases from each of the superior courts, and determines them finally. But it has
no original jurisdiction.

If a controversy arise between two foreigners of a nation in alliance with the United States, it is
decided by the Consul for their State, or, if both parties chuse it, by the ordinary courts of justice.
If one of the parties only be such a foreigner, it is triable before the courts of justice of the
country. But if it shall have been instituted in a county court, the foreigner may remove it into the
general court, or court of chancery, who are to determine it at their first sessions, as they must
also do if it be originally commenced before them. In cases of life and death, such foreigners
have a right to be tried by a jury, the one-half foreigners, the other natives.

All public accounts are settled with a board of auditors, consisting of three members appointed
by the general assembly, any two of whom may act. But an individual, dissatisfied with the
determination of that board, may carry his case into the proper superior court. [240]

A description of the laws.

The general assembly was constituted, as has been already shown, by letters-patent of March the
9th, 1607, in the 4th year of the reign of James the first. The laws of England seem to have been
adopted by consent of the settlers, which might easily enough be done whilst they were few and
living all together. Of such adoption, however, we have no other proof than their practice till the
year 1661, when they were expressly adopted by an act of the assembly, except so far as ‘a
difference of condition’ rendered them inapplicable. Under this adoption, the rule, in our courts
of judicature was, that the common law of England, and the general statutes previous to the 4th
of James, were in force here; but that no subsequent statutes were, unless we were named in
them, said the judges and other partisans of the crown, but named or not named, said those who
reflected freely. It will be unnecessary to attempt a description of the laws of England, as that
may be found in English publications. To those which were established here, by the adoption of
the legislature, have been since added a number of [241] acts of assembly passed during the
monarchy, and ordinances of convention and acts of assembly enacted since the establishment of
the republic. The following variations from the British model are perhaps worthy of being
specified:

Debtors unable to pay their debts, and making faithful delivery of their whole effects, are
released from confinement, and their persons forever discharged from restraint for such previous
debts: but any property they may afterwards acquire will be subject to their creditors.
The poor, unable to support themselves, are maintained by an assessment on the titheable persons in their parish. This assessment is levied and administered by twelve persons in each parish, called vestrymen, originally chosen by the housekeepers of the parish, but afterwards filling vacancies in their own body by their own choice. These are usually the most discreet farmers, so distributed through their parish, that every part of it may be under the immediate eye of some one of them. They are well acquainted with the details and œconomy of private life, and they find sufficient inducements to execute [242] their charge well, in their philanthropy, in the approbation of their neighbors, and the distinction which that gives them. The poor who have neither property, friends, nor strength to labour, are boarded in the houses of good farmers, to whom a stipulated sum is annually paid. To those who are able to help themselves a little, or have friends from whom they derive some succours, inadequate however to their full maintenance, supplementary aids are given which enable them to live comfortably in their own houses, or in the houses of their friends. Vagabonds without visible property or vocation, are placed in work houses, where they are well clothed, fed, lodged, and made to labour. Nearly the same methods of providing for the poor prevails through all our states; and from Savannah to Portsmouth you will seldom meet a beggar. In the larger towns, indeed, they sometimes present themselves. These are usually foreigners, who have never obtained a settlement in any parish. I never yet saw a native American begging in the streets or highways. A subsistence is easily gained here: and if, by misfortunes, they are thrown on the charities of the world, those provided by their own country are so comfortable and so certain, [243] that they never think of relinquishing them to become strolling beggars. Their situation too, when sick, in the family of a good farmer, where every member is emulous to do them kind offices, where they are visited by all the neighbors, who bring them the little rarities which their sickly appetites may crave, and who take by rotation the nightly watch over them, when their condition requires it, is without comparison better than in a general hospital, where the sick, the dying and the dead are crammed together in the same rooms, and often in the same beds. The disadvantages, inseparable from general hospitals, are such as can never be counterpoised by all the regularities of medicine and regimen. Nature and kind nursing save a much greater proportion in our plain way, at a smaller expense, and with less abuse. One branch only of hospital institution is wanting with us; that is a general establishment for those laboring under difficult cases of chirurgery. The aids of this art are not equivocal. But an able chirurgeon cannot be had in every parish. Such a receptacle should therefore be provided for those patients: but no others should be admitted. [244]

Marriages must be solemnized either on special licence, granted by the first magistrate of the county, on proof of the consent of the parent or guardian of either party under age, or after solemn publication, on three several sundays, at some place of religious worship, in the parishes where the parties reside. The act of solemnization may be by the minister of any society of christians, who shall have been previously licensed for this purpose by the court of the county. Quakers and Menonists however are exempted from all these conditions, and marriage among them is to be solemnized by the society itself.

A foreigner of any nation, not in open war with us, becomes naturalized by removing to the state to reside, and taking an oath of fidelity: and thereupon acquires every right of a native citizen:
and citizens may divest themselves of that character, by declaring, by solemn deed, or in open
court, that they mean to expatriate themselves, and no longer to be citizens of this state.

Conveyances of land must be registered in the court of the county wherein they lie, or in the
general court, or they are void, [245] as to creditors, and subsequent purchasers.

Slaves pass by descent and dower as lands do. Where the descent is from a parent, the heir is
bound to pay an equal share of their value in money to each of his brothers and sisters.

Slaves, as well as lands, were entailable during the monarchy; but, by an act of the first
republican assembly, all donees in tail, present and future, were vested with the absolute
dominion of the entailed subject.

Bills of exchange, being protested, carry 10 per cent. interest from their date.

No person is allowed, in any other case, to take more than five per centum per annum simple
interest for the loan of moneys.

Gaming debts are made void, and monies actually paid to discharge such debts (if they exceed 40
shillings) may be recovered by the payer within three months, or by any other person afterwards.

Tobacco, flour, beef, pork, tar, pitch, and turpentine must be inspected by persons publicly
appointed before they can be exported. [246]

The erecting iron-works and mills is encouraged by many privileges; with necessary cautions
however to prevent their dams from obstructing the navigation of the water courses. The general
assembly have on several occasions shewn a great desire to encourage the opening the great falls
of James and Patowmac rivers. As yet, however, neither of these have been effected.

The laws have also descended to the preservation and improvement of the races of useful
animals, such as horses, cattle, deer; to the extirpation of those which are noxious, as wolves,
squirrels, crows, blackbirds; and to the guarding our citizens against infectious disorders, by
obliging suspected vessels coming into the state, to perform quarantine, and by regulating the
conduct of persons having such disorders within the state.

The mode of acquiring lands, in the earliest times of our settlement, was by petition to the
general assembly. If the lands prayed for were already cleared of the Indian title, and the
assembly thought the prayer reasonable, they passed the property by their vote to the petitioner.
But if they had not yet been ceded by the Indians, it was neces-[247] sary that the petitioner
should previously purchase their right. This purchase the assembly verified, by enquiries of the
Indian proprietors; and being satisfied of its reality and fairness, proceeded further to examine
the reasonableness of the petition, and its consistence with policy; and according to the result
either granted or rejected the petition. The company also sometimes, though very rarely, granted
lands, independently of the general assembly. As the colony increased, and individual applications for land multiplied, it was found to give too much occupation to the general assembly to inquire into and execute the grant in every special case. They therefore thought it better to establish general rules, according to which all grants should be made, and to leave to the governor the execution of them, under these rules. This they did by what have been usually called the land laws, amending them from time to time, as their defects were developed.

According to these laws, when an individual wished a portion of unappropriated land, he was to locate and survey it by a public officer, appointed for that purpose: its breadth was to bear a certain proportion to its length: the grant was to be executed by the governor: and the lands were to be improved in a certain manner, within a given time. From these regulations there resulted to the state a sole and exclusive power of taking conveyances of the Indian right of soil; since, according to them an Indian conveyance alone could give no right to an individual, which the laws would acknowledge. The state, or the crown, thereafter, made general purchases of the Indians from time to time, and the governor parcelled them out by special grants, conformed to the rules before described, which it was not in his power, or in that of the crown, to dispense with. Grants, unaccompanied by their proper legal circumstances, were set aside regularly by scire facias, or by bill in Chancery. Since the establishment of our new government, this order of things is but little changed. An individual, wishing to appropriate to himself lands still unappropriated by any other, pays to the public treasurer a sum of money proportioned to the quantity he wants. He carries the treasurer’s receipt to the auditors of public accounts, who thereupon debit the treasurer with the sum, and order the register of the land-office to give the party a warrant for his land. With this warrant from the register, he goes to the surveyor of the county where the land lies on which he has cast his eye. The Surveyor lays it off for him, gives him its exact description, in the form of a certificate, which certificate he returns to the land-office, where a grant is made out, and is signed by the governor. This vests in him a perfect dominion in his lands, transmissible to whom he pleases by deed or will, or by descent to his heirs, if he die intestate.

Many of the laws which were in force during the monarchy being relative merely to that form of government, or inculcating principles inconsistent with republicanism, the first assembly which met after the establishment of the commonwealth, appointed a committee to revise the whole code, to reduce it into proper form and volume, and report it to the assembly. This work has been executed by three gentlemen, and reported; but probably will not be taken up till a restoration of peace shall leave to the legislature leisure to go through such a work.1

The plan of the revisal was this. The common law of England, by which is meant that part of the English law which was anterior to the date of the oldest statutes extant, is made the basis of the work. It was thought dangerous to attempt to reduce it to a text: it was therefore left to be collected from the usual monuments of it. Necessary alterations in that, and so much of the whole body of the British statutes, and of acts of assembly, as were thought proper to be retained, were digested into 126 new acts, in which simplicity of style was aimed at, as far as was safe. The following are the most remarkable alterations proposed:
To change the rules of descent, so as that the lands of any person dying intestate shall be divisible equally among all his children, or other representatives, in equal degree.

To make slaves distributable among the next of kin, as other movables.

To have all public expences, whether of the general treasury, or of a parish or county, (as for the maintenance of the poor, building bridges, court-houses, &c.,) supplied by as-[251] sessments on the citizens, in proportion to their property.

To hire undertakers for keeping the public roads in repair, and indemnify individuals through whose lands new roads shall be opened.

To define with precision the rules whereby aliens should become citizens, and citizens make themselves aliens.

To establish religious freedom on the broadest bottom.

To emancipate all slaves born after passing the act. The bill reported by the revisers does not itself contain this proposition; but an amendment containing it was prepared, to be offered to the legislature whenever the bill should be taken up, and further directing, that they should continue with their parents to a certain age, then be brought up, at the public expence, to tillage, arts, or sciences, according to their geniusses, till the females should be eighteen, and the males twenty-one years of age, when they should be colonized to such place as the circumstances of the time should render most proper, sending them out with arms, implements of household and of the handicraft arts, seeds, pairs of the [252] useful domestic animals, &c. to declare them a free and independant people, and extend to them our alliance and protection, till they shall have acquired strength; and to send vessels at the same time to other parts of the world for an equal number of white inhabitants; to induce whom to migrate hither, proper encouragements were to be proposed. It will probably be asked, Why not retain and incorporate the blacks into the state, and thus save the expence of supplying by importation of white settlers, the vacancies they will leave? Deep rooted prejudices entertained by the whites; ten thousand recollections, by the blacks, of the injuries they have sustained; new provocations; the real distinctions which nature has made; and many other circumstances will divide us into parties, and produce convulsions, which will probably never end but in the extermination of the one or the other race.—To these objections, which are political, may be added others, which are physical and moral. The first difference which strikes us is that of colour. Whether the black of the negro resides in the reticular membrane between the skin and scarfskin, or in the scarfskin itself; [253] whether it proceeds from the colour of the blood, the colour of the bile, or from that of some other secretion, the difference is fixed in nature, and is as real as if its seat and cause were better known to us. And is this difference of no importance? Is it not the foundation of a greater or less share of beauty in the two races? Are not the fine mixtures of red and white, the expressions of every passion by greater or less suffusions of colour in the one, preferable to that eternal monotony, which reigns in the countenances, that immovable veil of black which covers all the
emotions of the other race? Add to these, flowing hair, a more elegant symmetry of form, their own judgment in favour of the whites, declared by their preference of them as uniformly as is the preference of the Oran ootan for the black woman over those of his own species. The circumstance of superior beauty, is thought worthy attention in the propagation of our horses, dogs, and other domestic animals; why not in that of man? Besides those of colour, figure, and hair, there are other physical distinctions proving a difference of race. They have less hair on the face and body. They secrete less by the kidneys, and more by the glands of the skin, which gives them a very strong and disagreeable odour. This greater degree of transpiration, renders them more tolerant of heat, and less so of cold than the whites. Perhaps too a difference of structure in the pulmonary apparatus, which a late ingenious experimentalist has discovered to be the principal regulator of animal heat, may have disabled them from extricating, in the act of inspiration, so much of that fluid from the outer air, or obliged them in expiration, to part with more of it. They seem to require less sleep. A black after hard labour through the day, will be induced by the slightest amusements to sit up till midnight or later, though knowing he must be out with the first dawn of the morning. They are at least as brave, and more adventuresome. But this may perhaps proceed from a want of forethought, which prevents their seeing a danger till it be present. When present, they do not go through it with more coolness or steadiness than the whites. They are more ardent after their female; but love seems with them to be more an eager desire, than a tender delicate mixture of sentiment and sensation. Their griefs are transient. Those numberless afflictions, which render it doubtful whether heaven has given life to us in mercy or in wrath, are less felt, and sooner forgotten with them. In general, their existence appears to participate more of sensation than reflection. To this must be ascribed their disposition to sleep when abstracted from their diversions, and unemployed in labour. An animal whose body is at rest, and who does not reflect, must be disposed to sleep of course. Comparing them by their faculties of memory, reason, and imagination, it appears to me that in memory they are equal to the whites; in reason much inferior, as I think one could scarcely be found capable of tracing and comprehending the investigations of Euclid; and that in imagination they are dull, tasteless, and anomalous. It would be unfair to follow them to Africa for this investigation. We will consider them here, on the same stage with the whites, and where the facts are not apochryphal on which a judgment is to be formed. It will be right to make great allowances for the difference of condition, of education, of conversation, of the sphere in which they move. Many millions of them have been brought to, and born in America. Most of them, indeed, have been confined to tillage, to their own homes, and their own society: yet many have been so situated, that they might have availed themselves of the conversation of their masters; many have been brought up to the handicraft arts, and from that circumstance have always been associated with the whites. Some have been liberally educated, and all have lived in countries where the arts and sciences are cultivated to a considerable degree, and have had before their eyes samples of the best works from abroad. The Indians, with no advantages of this kind, will often carve figures on their pipes not destitute of design and merit. They will crayon out an animal, a plant, or a country, so as to prove the existence of a germ in their minds which only wants cultivation. They astonish you with strokes of the most sublime oratory; such as prove their reason and sentiment strong, their imagination glowing and elevated. But never yet could I find that a black had uttered a thought above the level of plain narration; never seen even an elementary
trait of painting or sculpture. In music they are more generally gifted than the whites, with accurate ears for tune and time, and they have been found capable of imagining a small catch.\footnote{Whether they will be equal to the composition of a more extensive run of melody, or of complicated harmony, is yet to be proved. Misery is often the parent of the most affecting touches in poetry.—Among the blacks is misery enough, God knows, but no poetry. Love is the peculiar œstrum of the poet. Their love is ardent, but it kindles the senses only, not the imagination. Religion, indeed, has produced a Phyllis Whately\footnote{The compositions published under her name are below the dignity of criticism. The heroes of the Dunciad are to her, as Hercules to the author of that poem. Ign-name-[258] tius Sancho\footnote{This criticism supposes the letters published under his name to be genuine, and to have received amendment from no other hand; points which would not be of easy investigation. The improvement of the blacks in body and mind, in the first instance of their mixture with the whites, has been observed by every one, and proves that their inferiority is not the effect merely of their condition of life. We know that among the Romans, about the Augustan age especially, the condition of their slaves was much more deplorable than that of the blacks on the continent of America. The two sexes were confined in separate apartments, because to raise a child cost the master more than to buy one. Cato, for a very restricted indulgence to his slaves in this particular,\footnote{The same Cato, on a principle of economy, always sold his sick and superannuated slaves. He gives it as a standing precept to a master visiting his farm, to sell his old oxen, old waggons, old tools, old and diseased servants, and everything else become useless. ‘Vendat boves vetulos, plastra vetus, feramenta vetera, servum senem, servum morbosum, si quid alius supersit vendat.’ Cato de re rusticâ, c. 2. The American slaves cannot enumerate this among the injuries and insults they receive. It was the common practice to expose in the island Æsculapius, in the Tyber, diseased slaves whose cure was like to become tedious.\footnote{The Emperor Claudius, by an edict, gave freedom to such of them as should recover, and first declared that if any person chose to kill rather than to expose them, it should be deemed homicide. The exposing them is a crime of which no instance has existed with us; and were it to be followed by death, it would be punished capitally. We are told of a certain Vedius Pollio, who, in the presence of Augustus, would have given a slave as food to his fish, for having broken} took from them a certain price. But in this country the slaves multiply as fast as the free inhabitants. Their situation and manners place the commerce between the two sexes almost without restraint.—[260] The same Cato, on a principle of economy, always sold his sick and superannuated slaves. He gives it as a standing precept to a master visiting his farm, to sell his old oxen, old waggons, old tools, old and diseased servants, and everything else become useless. ‘Vendat boves vetulos, plastra vetus, feramenta vetera, servum senem, servum morbosum, si quid alius supersit vendat.’ Cato de re rusticâ, c. 2. The American slaves cannot enumerate this among the injuries and insults they receive. 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a glass. With the Romans, the regular method of taking the evidence of their slaves was under torture. Here it has been thought better never to resort to their evidence. When a master was murdered, all his slaves, in the same house, or within hearing, were condemned to death. Here punishment falls on the guilty only, and as precise proof is required against him as against a freeman. Yet notwithstanding these and other discouraging circumstances among the Romans, their slaves were often their rarest artists. They excelled too in science, insomuch as to be usually employed as tutors to their master’s children. Epictetus, Terence, and Phædrus, were slaves. But they were of the race of whites. It is not their condition then, but nature, which has produced the distinction.—Whether further observation will or will not verify the conjecture, that nature has been less bountiful to them in the endowments of the head, I believe that in those of the heart she will be found to have done them justice. That disposition to theft with which they have been branded, must be ascribed to their situation, and not to any depravity of the moral sense. The man in whose favour no laws of property exist, probably feels himself less bound to respect those made in favour of others. When arguing for ourselves, we lay it down as a fundamental, that laws, to be just, must give a reciprocation of right: that, without this, they are mere arbitrary rules of conduct, founded in force, and not in conscience; and it is a problem which I give to the master to solve, whether the religious precepts against the violation of property were not framed for him as well as his slave? And whether the slave may not as justifiably take a little from one who has taken all from him, as he may slay one who would slay him? That a change in the relations in which a man is placed should change his ideas of moral right and wrong, is neither new, nor peculiar to the colour of the blacks. Homer tells us it was so 2600 years ago.

- Ἠμισυ, γὰρ τ’ ἀρετής ἀποαίνυται εὐφύοπα Ζεῦ
- Ἀφνερος, εὐτ’ ἂν μιν κατὰ δουλιον ἡμαρ ἐλησιν.
- —Od. 17, 323.

Jove fix’d it certain, that whatever day makes man a slave, takes half his worth away.

But the slaves of which Homer speaks were whites. Notwithstanding these considerations which must weaken their respect for the laws of property, we find among them numerous instances of the most rigid integrity, and as many as among their better instructed masters, of benevolence, gratitude, and unshaken fidelity. The opinion that they are inferior in the faculties of reason and imagination, must be hazarded with great diffidence. To justify a general conclusion, requires many observations, even where the subject may be submitted to the Anatomical knife, to Optical glasses, to analysis by fire or by solvents. How much more then where it is a faculty, not a substance, we are examining; where it eludes the research of all the senses; where the conditions of its existence are various and variously combined; where the effects of those which are present or absent bid defiance to calculation; let me add too, as a circumstance of great tenderness, where our conclusion would degrade a whole race of men from the rank in the scale of beings which their Creator may perhaps have given them. To our
reproach it must be said, that though for a century and a half we have had under our eyes the races of black and of red men, they have never yet been viewed by us as subjects of natural history. I advance it, [264] therefore, as a suspicion only, that the blacks, whether originally a distinct race, or made distinct by time and circumstances, are inferior to the whites in the endowments both of body and mind. It is not against experience to suppose that different species of the same genus, or varieties of the same species, may possess different qualifications. Will not a lover of natural history then, one who views the gradations in all the races of animals with the eye of philosophy, excuse an effort to keep those in the department of man as distinct as nature has formed them? This unfortunate difference of colour, and perhaps of faculty, is a powerful obstacle to the emancipation of these people. Many of their advocates, while they wish to vindicate the liberty of human nature, are anxious also to preserve its dignity and beauty. Some of these, embarrassed by the question, ‘What further is to be done with them?’ join themselves in opposition with those who are actuated by sordid avarice only. Among the Romans emancipation required but one effort. The slave, when made free, might mix with, without staining the blood of his [265] master. But with us a second is necessary, unknown to history. When freed, he is to be removed beyond the reach of mixture.

The revised code further proposes to proportion crimes and punishments. This is attempted in the following scale. [266]

- **I. Crimes whose punishment extends to Life.**
    - 1. By poison. Death by poison. Forfeiture of one-half, as before.
    - 2. In duel. Death by hanging. Gibbeting, if the challenger. Forfeiture of one-half as before, unless it be the party challenged, then the forfeiture is to the commonwealth.
    - 3. In any other way. Death by hanging. Forfeiture of one-half as before.
  - 4. Manslaughter. The second offence is murder.

- **II. Crimes whose punishment goes to Limb.**
  - 1. Rape . . . Dismemberment.
  - 4. Disfiguring . . . Retaliation, and the forfeiture of half of the lands and goods to the sufferer.

- **III. Crimes punishable by Labour.**
  1. Manslaughter, 1st offence. Labor VII. years for the public. Forfeiture of half, as in murder.
3. Arson Labor V. years. Reparation threefold.
9. Grand larceny. To be pitied, not punished.
11. Pretensions to witchcraft, &c. [269]
12. Excusable homicide. Pardon and privilege of clergy are proposed to be abolished; but if the verdict be against the defendant, the court in their discretion may allow a new trial. No attainder to cause a corruption of blood, or forfeiture of dower. Slaves guilty of offences punishable in others by labour, to be transported to Africa, or elsewhere, as the circumstances of the time admit, there to be continued in slavery. A rigorous regimen proposed for those condemned to labour.
13. Suicide.

Another object of the revisal is, to diffuse knowledge more generally through the mass of the people. This bill proposes to lay off every country into small districts of five or six miles square, called hundreds and in each of them to establish a school for teaching, reading, writing, and arithmetic. The tutor to be supported by the hundred, and every person in it entitled to send their children three years gratis, and as much longer as they please, paying for it. These schools to be under a visitor who is annually to chuse the boy of best genius in the school, of those whose parents are too poor to give them further education, and to send him forward to one of the grammar schools, of which twenty are proposed to be erected in different parts of the country, for teaching Greek, Latin, geography, and the higher branches of numerical arithmetic. Of the boys thus sent in any one year, trial is to be made at the grammar schools one or two years, and the best genius of the whole selected, and continued six years, and the residue dismissed. By this means twenty of the best geniuses will be raked from the rubbish annually, and be instructed, at the public expence, so far as the grammar schools go. At the end of six years instruction, one half are to be discontinued (from among whom the grammar schools will probably be supplied with future masters); and the other half, who are to be chosen for the superiority of their parts and disposition, are to be sent and continued three years in the study of
such sciences as they shall chuse, at William and Mary college, the plan of which is proposed to
be enlarged, as will be hereafter explained, and extended to all the useful sciences. The ultimate
result of the whole scheme of education would be the teaching all the children of the State
reading, writing, and common arithmetic; turning out ten annually, of su-[270] perior genius,
well taught in Greek, Latin, geography, and the higher branches of arithmetic; turning out ten
others annually, of still superior parts, who, to those branches of learning, shall have added such
of the sciences as their genius shall have them led to; the furnishing to the wealthier part of
the people convenient schools at which their children may be educated at their own expence.—The
general objects of this law are to provide an education adapted to the years, to the capacity, and
the condition of every one, and directed to their freedom and happiness. Specific details were not
proper for the law. These must be the business of the visitors entrusted with its execution. The
first stage of this education being the schools of the hundreds, wherein the great mass of the
people will receive their instruction, the principal foundations of future order will be laid here.
Instead, therefore, of putting the Bible and Testament into the hands of the children at an age
when their judgments are not sufficiently matured for religious inquiries, their memories may
here be stored with the most useful facts from Grecian, Roman, European, and American history.
The first [271] elements of morality too may be instilled into their minds; such as, when further
developed as their judgments advance in strength, may teach them how to work out their own
greatest happiness, by shewing them that it does not depend on the condition of life in which
chance has placed them, but is always the result of a good conscience, good health, occupation,
and freedom in all just pursuits.—Those whom either the wealth of their parents or the adoption
of the state shall destine to higher degrees of learning, will go on to the grammar schools, which
constitute the next stage, there to be instructed in the languages. The learning Greek and Latin, I
am told, is going into disuse in Europe. I know not what their manners and occupations may call
for: but it would be very ill-judged in us to follow their example in this instance. There is a
certain period of life, say from eight to fifteen or sixteen years of age, when the mind like the
body is not yet firm enough for laborious and close operations. If applied to such, it falls an early
victim to premature exertion; exhibiting, indeed, at first, in these young and tender subjects, the
flattering appearance of their be-[272] ing men while they are yet children, but ending in
reducing them to be children when they should be men. The memory is then most susceptible
and tenacious of impressions; and the learning of languages being chiefly a work of memory, it
seems precisely fitted to the powers of this period, which is long enough too for acquiring the
most useful languages, antient and modern. I do not pretend that language is science. It is only an
instrument for the attainment of science. But that time is not lost which is employed in providing
tools for future operation: more especially as in this case the books put into the hands of the
youth for this purpose may be such as will at the same time impress their minds with useful facts
and good principles. If this period be suffered to pass in idleness, the mind becomes lethargic and
impotent, as would the body it inhabits if unexercised during the same time. The sympathy
between body and mind during their rise, progress and decline, is too strict and obvious to
endanger our being misled while we reason from the one to the other.—As soon as they are of
sufficient age, it is supposed they will be sent on from the grammar schools to the [273]
university, which constitutes our third and last stage, there to study those sciences which may be
adapted to their views.—By that part of our plan which prescribes the selection of the youths of
genius from among the classes of the poor, we hope to avail the state of those talents which nature has shown as liberally among the poor as the rich, but which perish without use, if not sought for and cultivated.—But of all the views of this law none is more important, none more legitimate, than that of rendering the people the safe, as they are the ultimate, guardians of their own liberty. For this purpose the reading in the first stage, where they will receive their whole education, is proposed, as has been said, to be chiefly historical. History, by apprising them of the past, will enable them to judge of the future; it will avail them of the experience of other times and other nations; it will qualify them as judges of the actions and designs of men; it will enable them to know ambition under every disguise it may assume; and knowing it, to defeat its views. In every government on earth is some trace of human weakness, some germ of corruption and degeneracy, which cunning will discover, and wickedness insensibly open, cultivate and improve. Every government degenerates when trusted to the rulers of the people alone. The people themselves therefore are its only safe depositories. And to render even them safe, their minds must be improved to a certain degree. This indeed is not all that is necessary, though it be essentially necessary. An amendment of our constitution must here come in aid of the public education. The influence over government must be shared among all the people. If every individual which composes their mass participates of the ultimate authority, the government will be safe; because the corrupting the whole mass will exceed any private resources of wealth; and public ones cannot be provided but by levies on the people. In this case every man would have to pay his own price. The government of Great Britain has been corrupted, because but one man in ten has a right to vote for members of parliament. The sellers of the government, therefore, get ninetenths of their price clear. It has been thought that corruption is restrained by confining the right of suffrage to a few of the wealthier of the people: but [275] it would be more effectually restrained by an extension of that right to such members as would bid defiance to the means of corruption.

Lastly, it is proposed, by a bill in this revisal, to begin a public library and gallery, by laying out a certain sum annually in books, paintings, and statues.
QUERY XV
The colleges and public establishments, the roads, buildings, &c.?

The college of William and Mary is the only public seminary of learning in this State. It was founded in the time of king William and queen Mary, who granted to it 20,000 acres of land, and a penny a pound duty on certain tobaccoes exported from Virginia and Maryland, which had been levied by the statute of 25 Car. II. The assembly also gave it, by temporary laws, a duty on liquors imported, and skins and furs exported. From these resources it received upwards of 3000l communibus annis. The buildings are of brick, sufficient for an indifferent accommodation of perhaps an hundred students. By its charter it was to be under the government of twenty visitors, who were to be its legislators, and to have a president and six professors, who were incorporated. It was allowed a representative in the general assembly. Under this charter, a professorship of the Greek and Latin languages, a professorship of mathematics, one of moral philosophy, and two of divinity were established. To these were annexed, for a sixth professorship, a considerable donation by Mr. Boyle, of England, for the instruction of the Indians, and their conversion to Christianity. This was called the professorship of Brafferton, from an estate of that name in England, purchased with the monies given. The admission of the learners of Latin and Greek filled the college with children. This rendering it disagreeable and degrading to young gentlemen already prepared for entering on the sciences, they were discouraged from resorting to it, and thus the schools for mathematics and moral philosophy, which might have been of some service, became of very little. The revenues, too, were exhausted in accommodating those who came only to acquire the rudiments of science. After the present revolution, the visitors, having no power to change those circumstances in the constitution of the college which were fixed by the charter, and being therefore confined in the number of professorships, undertook to change the objects of the professorships. They excluded the two schools for divinity, and that for the Greek and Latin languages, and substituted others; so that at present they stand thus:

A professorship for Law and Police:

Anatomy and Medicine:

Natural Philosophy and Mathematics:

Moral Philosophy, the Law of Nature and Nations, the Fine Arts:

Modern Languages:

For the Brafferton.

And it is proposed, so soon as the legislature shall have leisure to take up this subject, to desire authority from them to increase the number of professorships, as well for the purpose of subdividing those already instituted, as of adding others for other branches of science. To the
professorships usually established in the universities of Europe, it [278] would seem proper to add one for the ancient languages and literature of the North, on account of their connection with our own language, laws, customs, and history. The purposes of the Brafferton institution would be better answered by maintaining a perpetual mission among the Indian tribes, the object of which, besides instructing them in the principles of Christianity, as the founder requires, should be to collect their traditions, laws, customs, languages, and other circumstances which might lead to a discovery of their relation with one another, or descent from other nations. When these objects are accomplished with one tribe, the missionary might pass on to another.

The roads are under the government of the county courts, subject to be controuled by the general court. They order new roads to be opened wherever they think them necessary. The inhabitants of the county are by them laid off into precincts, to each of which they allot a convenient portion of the public roads to be kept in repair. Such bridges as may be built without the assistance of artificers, they are to build. If the stream be such as to require a bridge of regular [279] workmanship, the court employs workmen to build it at the expense of the whole county. If it be too great for the county, application is made to the general assembly, who authorize individuals to build it, and to take a fixed toll from all passengers, or give sanction to such other proposition as to them appears reasonable.

Ferries are admitted only at such places as are particularly pointed out by law, and the rates of ferriage are fixed.

Taverns are licensed by the courts, who fix their rates from time to time.

The private buildings are very rarely constructed of stone or brick, much the greatest proportion being of scantling and boards, plaistered with lime. It is impossible to devise things more ugly, uncomfortable, and happily more perishable. There are two or three plans, on one of which, according to its size, most of the houses in the state are built. The poorest people build huts of logs, laid horizontally in pens, stopping the interstices with mud. These are warmer in winter, and cooler in summer, than the more expensive constructions of scantling and plank. The wealthy are attentive to the raising of [280] vegetables, but very little so to fruits. The poorer people attend to neither, living principally on milk and animal diet. This is the more inexcusable, as the climate requires indispensably a free use of vegetable food, for health as well as comfort, and is very friendly to the raising of fruits.—The only public buildings worthy mention are the Capitol, the Palace, the College, and the Hospital for Lunatics, all of them in Williamsburg, heretofore the seat of our government. The Capitol is a light and airy structure, with a portico in front of two orders, the lower of which, being Doric, is tolerably just in its proportions and ornaments, save only that the intercolonations are too large. The upper is Ionic, much too small for that on which it is mounted, its ornaments not proper to the order, nor proportioned within themselves. It is crowned with a pediment, which is too high for its span. Yet, on the whole, it is the most pleasing piece of architecture we have. The Palace is not handsome without, but it is spacious and commodious within, is prettily situated, and with the grounds annexed to it, is capable of being made an elegant seat. The Col- [281] lege and Hospital are rude, mis-shapen
piles, which, but that they have roofs, would be taken for brick-kilns. There are no other public
buildings but churches and court-houses, in which no attempts are made at elegance. Indeed, it
would not be easy to execute such an attempt, as a workman could scarcely be found here
capable of drawing an order. The genius of architecture seems to have shed its maledictions over
this land. Buildings are often erected, by individuals, of considerable expense. To give these
symmetry and taste, would not increase their cost. It would only change the arrangement of the
materials, the form and combination of the members. This would often cost less than the burthen
of barbarous ornaments with which these buildings are sometimes charged. But the first
principles of the art are unknown, and there exists scarcely a model among us sufficiently chaste
to give an idea of them. Architecture being one of the fine arts, and as such within the
department of a professor of the college, according to the new arrangement, perhaps a spark may
fall on some young subjects of natural taste, kindle up their genius, and produce a reforma-
tion in this elegant and useful art. But all we shall do in this way will produce no permanent
improvement to our country, while the unhappy prejudice prevails that houses of brick or stone
are less wholesome than those of wood. A dew is often observed on the walls of the former in
rainy weather, and the most obvious solution is, that the rain has penetrated through these walls.
The following facts, however, are sufficient to prove the error of this solution. 1. This dew on the
walls appears when there is no rain, if the state of the atmosphere be moist. 2. It appears on the
partition as well as the exterior walls. 3. So, also, on pavements of brick or stone. 4. It is more
copious in proportion as the walls are thicker; the reverse of which ought to be the case, if this
hypothesis were just. If cold water be poured into a vessel of stone, or glass, a dew forms
instantly on the outside: but if it be poured into a vessel of wood, there is no such appearance. It
is not supposed, in the first case, that the water has exuded through the glass, but that it is
precipitated from the circumambient air; as the humid particles of vapour, passing from the
boiler of an alembic [283] through its refrigerant, are precipitated from the air, in which they
were suspended, on the internal surface of the refrigerant. Walls of brick or stone act as the
refrigerant in this instance. They are sufficiently cold to condense and precipitate the moisture
suspended in the air of the room, when it is heavily charged therewith. But walls of wood are not
so. The question then is, whether air in which this moisture is left floating, or that which is
deprived of it, be most wholesome? In both cases, the remedy is easy. A little fire kindled in the
room, whenever the air is damp, prevents the precipitation on the walls: and this practice, found
healthy in the warmest as well as coldest seasons, is as necessary in a wooden as in a stone or a
brick house. I do not mean to say, that the rain never penetrates through walls of brick. On the
contrary, I have seen instances of it. But with us it is only through the northern and eastern walls
of the house, after a north-easterly storm, these being the only ones which continue long enough
to force through the walls. This, however, happens too rarely to give a just character of
unwholesomeness to such [284] houses. In a house, the walls of which are of wellburnt brick and
good mortar, I have seen the rain penetrate through but twice in a dozen or fifteen years. The
inhabitants of Europe, who dwell chiefly in houses of stone or brick, are surely as healthy as
those of Virginia. These houses have the advantage, too, of being warmer in winter and cooler in
summer than those of wood; of being cheaper in their first construction, where lime is
convenient, and infinitely more durable. The latter consideration renders it of great importance to
eradicate this prejudice from the minds of our countrymen. A country whose buildings are of
wood, can never increase in its improvements to any considerable degree. Their duration is highly estimated at 50 years. Every half century then our country becomes a tabula rasa, whereon we have to set out anew, as in the first moment of seating it. Whereas when buildings are of durable materials, every new edifice is an actual and permanent acquisition to the State, adding to its value as well as to its ornament. [285]
QUERY XVI
The measures taken with regard of the estates and possessions of the rebels, commonly called Tories?

A tory has been properly defined to be a traitor in thought, but not in deed. The only description, by which the laws have endeavoured to come at them, was that of non-jurors, or persons refusing to take the oath of fidelity to the state. Persons of this description were at one time subjected to double taxation, at another treble, and lastly were allowed retribution, and placed on a level with good citizens. It may be mentioned as a proof, both of the lenity of our government, and unanimity of its inhabitants, that though this war has now raged near seven years not a single execution for treason has taken place.

Under this query I will state the measures which have been adopted as to British property, the owners of which stand on a much fairer footing than the Tories. By our laws, the same as the English as in this respect, [286] no alien can hold lands, nor alien enemy maintain an action for money, or other movable thing. Lands acquired or held by aliens become forfeited to the state; and, on an action by an alien enemy to recover money, or other movable property, the defendant may plead that he is an alien enemy. This extinguishes his right in the hands of the debtor or holder of his movable property. By our separation from Great Britain, British subjects became aliens, and being at war, they were alien enemies. Their lands were of course forfeited, and their debts irrecoverable. The assembly, however, passed laws at various times, for saving their property. They first sequestered their lands, slaves, and other property on their farms in the hands of commissioners, who were mostly the confidential friends or agents of the owners, and directed their clear profits to be paid into the treasury: and they gave leave to all persons owing debts to British subjects to pay them also into the treasury. The monies so to be brought in were declared to remain the property of the British subject, and, if used by the state, were to be repaid, unless an improper conduct in Great-Britain should render a detention of it reasonable. Depreciation had at that time, though unacknowledged and unperceived by the Whigs begun in some small degree. Great sums of money were paid in by debtors. At a later period, the assembly, adhering to the political principles which forbid an alien to hold lands in the state, ordered all British property to be sold: and, become sensible of the real progress of depreciation, and of the losses which would thence occur, if not guarded against, they ordered that the proceeds of the sales should be converted into their then worth in tobacco, subject to the future direction of the legislature. This act has left the question of retribution more problematical. In May 1780 another act took away the permission to pay into the public treasury debts due to British subjects.
QUERY XVII
The different religions received into that state?

The first settlers in this country were emigrants from England, of the English church, [288] just at a point of time when it was flushed with complete victory over the religious of all other persuasions. Possessed, as they became, of the powers of making, administering and executing the laws, they shewed equal intolerance in this country with their Presbyterian brethren, who had emigrated to the northern government. The poor Quakers were flying from persecution in England. They cast their eyes on these new countries as asylums of civil and religious freedom; but they found them free only for the reigning sect. Several acts of the Virginia assembly of 1659, 1662, and 1693, had made it penal in parents to refuse to have their children baptized; had prohibited the unlawful assembling of Quakers; had made it penal for any master of a vessel to bring a Quaker into the state; had ordered those already here, and such as should come thereafter, to be imprisoned till they should abjure the country; provided a milder punishment for their first and second return, but death for their third; had inhibited all persons from suffering their meetings in or near their houses, entertaining them individually, or disposing of books which supported their [289] tenets. If no capital execution took place here, as did in New-England, it was not owing to the moderation of the church, or spirit of the legislature, as may be inferred from the law itself; but to historical circumstances which have not been handed down to us. The Anglicans retained full possession of the country about a century. Other opinions began then to creep in, and the great care of the government to support their own church, having begotten an equal degree of indolence in its clergy, two thirds of the people had become dissenters at the commencement of the present revolution. The laws indeed were still oppressive on them, but the spirit of the one party had subsided into moderation, and of the other had risen to a degree of determination which commanded respect.

The present state of our laws on the subject of religion is this. The convention of May 1776, in their declaration of rights, declared it to be a truth, and a natural right, that the exercise of religion should be free; but when they proceeded to form on that declaration the ordinance of government, instead of taking up every principle declared [290] in the bill of rights, and guarding it by legislative sanction, they passed over that which asserted our religious rights, leaving them as they found them. The same convention, however, when they met as a member of the general assembly in October 1776, repealed all acts of parliament which had rendered criminal the maintaining any opinions in matters of religion, the forbearing to repair to church, and the exercising any mode of worship; and suspended the laws giving salaries to the clergy, which suspension was made perpetual in October 1779. Statutory oppressions in religion being thus wiped away, we remain at present under those only imposed by the common law, or by our own acts of assembly. At the common law, heresy was a capital offence, punishable by burning. Its definition was left to the ecclesiastical judges, before whom the conviction was, till the statute of the 1 El. c. 1. circumscribed it, by declaring that nothing should be deemed heresy but what had been so determined by authority of the canonical scriptures, or by one of the four first general councils, or by some other council having for the grounds of their declaration the [291] express and plain words of the scriptures. Heresy, thus circumscribed, being an offence at the common
law, our act of assembly of October 1777, c. 17 gives cognizance of it to the general court, by declaring that the jurisdiction of that court shall be general in all matters at the common law. The execution is by the writ *De haæretico comburendo*. By our own act of assembly of 1705, c. 30, if a person brought up in the christian religion denies the being of a God, or the trinity, or asserts there are more Gods than one, or denies the christian religion to be true, or the scriptures to be of divine authority, he is punishable on the first offence by incapacity to hold any office or employment ecclesiastical, civil, or military; on the second by disability to sue, to take any gift or legacy, to be guardian, executor or administrator, and by three years imprisonment, without bail. A father’s right to the custody of his own children being founded in law on his right of guardianship, this being taken away, they may of course be severed from him and put, by the authority of a court, into more orthodox hands. This is a summary view of that religious slavery [292] under which a people have been willing to remain who have lavished their lives and fortunes for the establishment of their civil freedom. The error seems not sufficiently eradicated, that the operations of the mind, as well as the acts of the body, are subject to the coercion of the laws.\(^1\) But our rulers can have authority over such natural rights, only as we have submitted to them. The rights of conscience we never submitted, we could not submit. We are answerable for them to our God. The legitimate powers of government extend to such acts only as are injurious to others.\(^1\) But it does me no injury for my neighbor to say there are twenty gods, or no god. It neither picks my pocket nor breaks my leg. If it be said his testimony in a court of justice cannot be relied on, reject it then, and be the stigma on him. Constraint may make him worse by making him a hypocrite, but it will never make him a truer man. It may fix him obstinately in his errors, but will not cure [293] them. Reason and free inquiry are the only effectual agents against error. Give a loose to them, they will support the true religion by bringing every false one to their tribunal, to the test of their investigation. They are the natural enemies of error, and of error only. Had not the Roman government permitted free inquiry, christianity could never have been introduced. Had not free inquiry been indulged, at the æra of the reformation, the corruptions of christianity could not have been purged away. If it be restrained now, the present corruptions will be protected, and new ones encouraged. Was the government to prescribe to us our medicine and diet, our bodies would be in such keeping as our souls are now. Thus in France the emetic was once forbidden as a medicine, and the potatoe as an article of food.\(^1\) Government is just as infallible, too, when it fixes systems in physics. Galileo was sent to the inquisition for affirming that the earth was a sphere; the government had declared it to be as flat as a trencher, and Galileo was obliged to abjure his error. This error however at length prevailed, the earth became a globe, and Descartes declared [294] it was whirled round its axis by a vortex. The government in which he lived was wise enough to see that this was no question of civil jurisdiction, or we should all have been involved by authority in vortices. In fact the vortices have been exploded, and the Newtonian principles of gravitation is now more firmly established, on the basis of reason, than it would be were the government to step in and to make it an article of necessary faith. Reason and experiment have been indulged, and error has fled before them. It is error alone which needs the support of government. Truth can stand by itself. Subject opinion to coercion: whom will you make your inquisitors? Fallible men; men governed by bad passions, by private as well as public reasons. And why subject it to coercion? To produce uniformity. But is uniformity of opinion desireable? No more than of face and stature. Introduce the bed of Procrustes then, and as there
is danger that the large men may beat the small, make us all of a size, by lopping the former and stretching the latter. Difference of opinion is advantageous in religion. The several sects perform the office of a Censor morum over [295] each other. Is uniformity attainable? Millions of innocent men, women and children, since the introduction of Christianity, have been burnt, tortured, fined, imprisoned: yet we have not advanced one inch towards uniformity. What has been the effect of coercion? To make one half the world fools, and the other half hypocrites. To support roguery and error all over the earth. Let us reflect that it is inhabited by a thousand millions of people. That these profess probably a thousand different systems of religion. That ours is but one of that thousand. That if there be but one right, and ours that one, we should wish to see the 999 wandering sects gathered into the fold of truth. But against such a majority we cannot effect this by force. Reason and persuasion are the only practicable instruments. To make way for these, free inquiry must be indulged; and how can we wish others to indulge it while we refuse it ourselves. But every state, says an inquisitor, has established some religion. “No two, say I, have established the same.” Is this a proof of the infallibility of establishments? Our sister states of Pennsylvania [296] and New York, however, have long subsisted without any establishment at all. The experiment was new and doubtful when they made it. It has answered beyond conception. They flourish infinitely. Religion is well supported; of various kinds indeed, but all good enough; all sufficient to preserve peace and order: or if a sect arises whose tenets would subvert morals, good sense has fair play, and reasons and laughs it out of doors, without suffering the state to be troubled with it. They do not hang more male-factors than we do. They are not more disturbed with religious dissentions. On the contrary, their harmony is unparalleled, and can be ascribed to nothing but their unbounded tolerance, because there is no other circumstance in which they differ from every nation on earth. They have made the happy discovery, that the way to silence religious disputes, is to take no notice of them. Let us too give this experiment fair play, and get rid, while we may, of those tyrannical laws. It is true we are as yet secured against them by the spirit of the times. I doubt whether the people of this country would suffer an execution for heresy, or a three years imprisonment for not [297] comprehending the mysteries of the trinity. But is the spirit of the people an infallible, a permanent reliance? Is it government? Is this the kind of protection we receive in return for the rights we give up? Besides, the spirit of the times may alter, will alter. Our rulers will become corrupt, our people careless. A single zealot may commence persecuter, and better men be his victims. It can never be too often repeated, that the time for fixing every essential right on a legal basis is while our rulers are honest, and ourselves united. From the conclusion of this war we shall be going down hill. It will not then be necessary to resort every moment to the people for support. They will be forgotten therefore, and their rights disregarded. They will forget themselves, but in the sole faculty of making money, and will never think of uniting to effect a due respect for their rights. The shackles, therefore, which shall not be knocked off at the conclusion of this war, will remain on us long, will be made heavier and heavier, till our rights shall revive or expire in a convulsion. [298]
QUERY XVIII
The particular customs and manners that may happen to be received in that State?

It is difficult to determine on the standard by which the manners of a nation may be tried, whether catholic or particular. It is more difficult for a native to bring to that standard the manners of his own nation, familiarized to him by habit. There must doubtless be an unhappy influence on the manners of our people produced by the existence of slavery among us. The whole commerce between master and slave is a perpetual exercise of the most boisterous passions, the most unremitting despotism on the one part, and degrading submissions on the other. Our children see this, and learn to imitate it; for man is an imitative animal. This quality is the germ of all education in him. From his cradle to his grave he is learning to do what he sees others do. If a parent could find no motive either in his philanthropy or his self-love, for restraining the intemperance of passion towards his slave, it [299] should always be a sufficient one that his child is present. But generally it is not sufficient. The parent storms, the child looks on, catches the lineaments of wrath, puts on the same airs in the circle of smaller slaves, gives a loose to the worst of passions, and thus nursed, educated, and daily exercised in tyranny, cannot but be stamped by it with odious peculiarities. The man must be a prodigy who can retain his manners and morals undepraved by such circumstances. And with what execrations should the statesman be loaded, who permitting one half the citizens thus to trample on the rights of the other, transforms those into despots, and these into enemies, destroys the morals of the one part, and the amor patriæ of the other. For if a slave can have a country in this world, it must be any other in preference to that in which he is born to live and labour for another: in which he must lock up the faculties of his nature, contribute as far as depends on his individual endeavours to the evanishment of the human race, or entail his own miserable condition on the endless generations proceeding from him. With the morals of the people, their industry also is [300] destroyed. For in a warm climate, no man will labour for himself who can make another labour for him. This is so true, that of the proprietors of slaves a very small proportion indeed are ever seen to labour. And can the liberties of a nation be thought secure when we have removed their only firm basis, a conviction in the minds of the people that these liberties are of the gift of God? That they are not to be violated but with his wrath? Indeed I tremble for my country when I reflect that God is just: that his justice cannot sleep forever: that considering numbers, nature and natural means only, a revolution of the wheel of fortune, an exchange of situation, is among possible events: that it may become probable by supernatural interference! The Almighty has no attribute which can take side with us in such a contest.—But it is impossible to be temperate and to pursue this subject through the various considerations of policy, of morals, of history natural and civil. We must be contented to hope they will force their way into every one’s mind. I think a change already perceptible, since the origin of the present revolution. The spirit of the master is [301] abating, that of the slave rising from the dust, his condition mollifying, the way I hope preparing, under the auspices of heaven, for a total emancipation, and that this is disposed, in the order of events, to be with the consent of the masters, rather than by their extirpation.
QUERY XIX
The present state of manufactures, commerce, interior and exterior trade?

We never had an interior trade of any importance. Our exterior commerce has suffered very much from the beginning of the present contest. During this time we have manufactured within our families the most necessary articles of cloathing. Those of cotton will bear some comparison with the same kinds of manufacture in Europe; but those of wool, flax and hemp are very coarse, unsightly, and unpleasant: and such is our attachment to agriculture, and such our preference for foreign manufactures, that it be wise or unwise, our people will certainly re- [302] turn as soon as they can, to the raising raw materials, and exchanging them for finer manufactures than they are able to execute themselves.

The political œconomists of Europe have established it as a principle, that every State should endeavour to manufacture for itself; and this principle, like many others, we transfer to America, without calculating the difference of circumstance which should often produce a difference of result. In Europe the lands are either cultivated, or locked up against the cultivator. Manufacture must therefore be resorted to, of necessity, not of choice, to support the surplus of their people. But we have an immensity of land courting the industry of the husbandman. Is it best then that all our citizens should be employed in its improvement, or that one half should be called off from that to exercise manufactures and handicraft arts for the other? Those who labour in the earth are the chosen people of God, if ever he had a chosen people, whose breasts he has made his peculiar deposit for substantial and genuine virtue. It is the focus in which he keeps alive that sacred fire, which otherwise [303] might escape from the face of the earth. Corruption of morals in the mass of cultivators is a phenomenon of which no age nor nation has furnished an example. It is the mark set on those, who not looking up to heaven, to their own soil and industry, as does the husbandman, for their subsistence, depend for it on casualties and caprice of customers. Dependance begets subservience and venality, suffocates the germ of virtue, and prepares fit tools for the designs of ambition. This, the natural progress and consequence of the arts, has sometimes perhaps been retarded by accidental circumstances: but, generally speaking the proportion which the aggregate of the other classes of citizens bears in any state to that of its husbandmen, is the proportion of its unsound to its healthy parts, and is a good enough barometer whereby to measure its degree of corruption. While we have land to labour then, let us never wish to see our citizens occupied at a work-bench, or twirling a distaff. Carpenters, masons, smiths, are wanting in husbandry: but, for the general operations of manufacture, let our workshops remain in Europe. It is better to carry provisions and materials to work- [304] men there, than bring them to the provisions and materials, and with them their manners and principles. The loss by the transportation of commodities across the Atlantic will be made up in happiness and permanence of government. The mobs of great cities add just so much to the support of pure government, as sores do to the strength of the human body. It is the manners and spirit of a people which preserve a republic in vigour. A degeneracy in these is a canker which soon eats to the heart of its laws and constitution.
QUERY XX
A notice of the commercial productions particular to the state, and of those objects which the inhabitants are obliged to get from Europe and from other parts of the world?

Before the present war we exported, *communibus annis*, according to the best information I can get, nearly as follows: [305]

<table>
<thead>
<tr>
<th>Articles.</th>
<th>Quantity.</th>
<th>Price in Dollars.</th>
<th>Amount in Dollars.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>55,000 hhds. of 1,000 lbs.</td>
<td>at 30d. per hhd.</td>
<td>1,650,000</td>
</tr>
<tr>
<td>Wheat</td>
<td>800,000 bushels.</td>
<td>at 5–6d. per bush.</td>
<td>666,666½</td>
</tr>
<tr>
<td>Indian corn</td>
<td>600,000 bushels.</td>
<td>at ⅓ per bush.</td>
<td>200,000</td>
</tr>
<tr>
<td>Shipping</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>100,000</td>
</tr>
<tr>
<td>Masts, planks, scantling shingles, staves</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>66,666½</td>
</tr>
<tr>
<td>Tar, pitch, turpentine</td>
<td>30,000 barrels.</td>
<td>at 1 ⅓ per bbl.</td>
<td>40,000</td>
</tr>
<tr>
<td>Peltry, viz., skins of deer, beavers, otters, musk rats, raccoons, foxes</td>
<td>180 hhds. of 600 lbs.</td>
<td>at 5–12d. per lb.</td>
<td>42,000</td>
</tr>
<tr>
<td>Pork</td>
<td>4,000 barrels.</td>
<td>at 10d. per bbl.</td>
<td>40,000</td>
</tr>
<tr>
<td>Flax-seed, hemp, cotton</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>8,000</td>
</tr>
<tr>
<td>Pit coal, pig iron</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>6,666½</td>
</tr>
<tr>
<td>Peas</td>
<td>5,000 bushels.</td>
<td>at ⅔ per bush.</td>
<td>3,333½</td>
</tr>
<tr>
<td>Beef</td>
<td>1,000 barrels.</td>
<td>at ⅓ per bbl.</td>
<td>3,333½</td>
</tr>
<tr>
<td>Sturgeon, white shad, herring</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>3,333½</td>
</tr>
<tr>
<td>Brandy from peaches and apples, and whiskey</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>1,666½</td>
</tr>
<tr>
<td>Horses</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>1,666½</td>
</tr>
<tr>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>. . . . . .</td>
<td>2,833,333½</td>
</tr>
</tbody>
</table>

1This sum is equal to £850,000; Virginia money, 607,142 guineas.—*T. J.*
In the year 1758 we exported seventy thousand hogsheads of tobacco, which was the greatest quantity ever produced in this country in one year. But its culture was fast declining at the commencement of this war, and that of wheat taking its place: and it must continue to decline on the return of peace. I suspect that the change in the temperature of our climate has become sensible to that plant, which, to be good, requires an extraordinary degree of heat. But it requires still more indispensably an uncommon fertility of soil: and the price which it commands at market will not enable the planter to produce this by manure. Was the supply still to depend on Virginia and Maryland alone, as its culture becomes more difficult, the price would rise, so as to enable the planter to surmount those difficulties and to live. But the western country on the Mississippi, and the midlands of Georgia, having fresh and fertile lands in abundance, and a hotter sun, will be able to undersell these two states, and will oblige them to abandon the raising of tobacco altogether. And a happy obligation for them it will be. It is a culture productive of infinite wretchedness. [307] Those employed in it are in a continual state of exertion beyond the power of nature to support. Little food of any kind is raised by them; so that the men and animals on these farms are illy fed, and the earth is rapidly impoverished. The cultivation of wheat is the reverse in every circumstance. Besides cloathing the earth with herbage, and preserving its fertility, it feeds the labourers plentifully, requires from them only a moderate toil, except in the season of harvest, raises great numbers of animals for food and service, and diffuses plenty and happiness among the whole. We find it easier to make an hundred bushels of wheat than a thousand weight of tobacco, and they are worth more when made. The weavil indeed is a formidable obstacle to the cultivation of this grain with us. But principles are already known which must lead to a remedy. Thus a certain degree of heat, to wit, that of the common air in summer, is necessary to hatch the eggs. If subterranean granaries, or others, therefore, can be contrived below that temperature, the evil will be cured by cold. A degree of heat beyond that which hatches the egg we know will [308] kill it. But in aiming at this we easily run into that which produced putrefaction. To produce putrefaction, however, three agents are requisite, heat, moisture, and the external air. If the absence of any one of these be secured, the other two may safely be admitted. Heat is the one we want. Moisture then, or external air, must be excluded. The former has been done by exposing the grain in kilns to the action of fire, which produces heat, and extracts moisture at the same time: the latter, by putting the grain into hogsheads, covering it with a coating of lime, and heading it up. In this situation its bulk produced a heat sufficient to kill the egg; the moisture is suffered to remain indeed, but the external air is excluded. A nicer operation yet has been attempted; that is, to produce an intermediate temperature of heat between that which kills the egg, and that which produces putrefaction. The threshing the grain as soon as it is cut, and laying it in its chaff in large heaps, has been found very nearly to hit this temperature, though not perfectly, nor always. The heap generates heat sufficient to kill most of the eggs, whilst the chaff commonly restrains it from rising into putrefaction. But all these [309] methods abridge too much the quantity which the farmer can manage, and enable other countries to undersell him, which are not infested with this insect. There is still a desideratum then to give with us decisive triumph to this branch of agriculture over that of tobacco.—The culture of wheat by enlarging our pasture, will render the Arabian horse an article of very considerable profit. Experience has shown that ours is the particular climate of America where he may be raised without degeneracy. Southwardly the heat of the sun
occasions a deficiency of pasture, and northwardly the winters are too cold for the short and fine
hair, the particular sensibility and constitution of that race. Animals transplanted into unfriendly
climates, either change their nature and acquire new senses against the new difficulties in which
they are placed, or they multiply poorly and become extinct. A good foundation is laid for their
propagation here by our possessing already great numbers of horses of that blood, and by a
decided taste and preference for them established among the people. Their patience of heat
without injury, their superior wind, fit them better in this and the more southern climates even for
the drudge- [310] ries of the plough and wagon. Northwardly they will become an object only to
persons of taste and fortune, for the saddle and light carriages. To these, and for these uses, their
fleetsness and beauty will recommend them.—Besides these there will be other valuable
substitutes when the cultivation of tobacco shall be discontinued, such as cotton in the eastern
parts of the state, and hemp and flax in the western.

It is not easy to say what are the articles either of necessity, comfort, or luxury, which we cannot
raise, and which we therefore shall be under a necessity of importing from abroad, as everything
hardier than the olive, and as hardy as the fig, may be raised here in the open air. Sugar, coffee
and tea, indeed, are not between these limits; and habit having placed them among the
necessaries of life with the wealthy part of our citizens, as long as these habits remain we must
go for them to those countries which are able to furnish them. [311]
QUERY XXI
The weights, measures and the currency of the hard money? Some details relating to exchange with Europe?

Our weights and measures are the same which are fixed by acts of parliament in England.—How it has happened that in this as well as the other American States the nominal value of coin was made to differ from what it was in the country we had left, and to differ among ourselves too, I am not able to say with certainty. I find that in 1631 our house of burgesses desired of the privy council in England, a coin debased to twenty-five per cent: that in 1645 they forbid dealing by barter for tobacco, and established the Spanish piece of eight at six shillings, as the standard of their currency: that in 1655 they changed it to five shillings sterling. In 1680 they sent an address to the king, in consequence of which, by proclamation in 1683, he fixed the value of French crowns, rixdollars, and pieces of eight, at six shillings, and the coin of New England at one shilling. That in 1710, 1714, 1727, and 1762 other regulations were made, which will be better presented to the eye stated in the form of a table as follows: [312]

<table>
<thead>
<tr>
<th></th>
<th>1710</th>
<th>1714</th>
<th>1727</th>
<th>1762</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the edition of 1853, the following footnote is added:

“In the States the Dollar is valued at 6s., the coincidence of their currency with the Greek and Roman moneys is so singular as to be worthy of notice, and to found a suspicion that this object may have had some influence in fixing our moneys at this particular point, at a time when the value of Greek and Roman learning was more justly estimated than at this day. The Penny Lawful is precisely the Roman As, which was their unit; 10 of which, equal to Ten Pence Lawful, made the Attic Drachma, according to Pliny, L. 21, c. 33. In the latter ages of their history the moneys of these two people were interwoven so as to make parts of the same series, which were in some degree decimal.

The As (L.) at first Libralis, but latterly ½ an ounce of copper, and called Libella = 1d. lawful.

10 As made the Denarius (X.,) or Attic Drachm = 10d.

100 Denarii made the Mina or Pondo = 1,000d.; or £4 3s. 4d.

The Denarius having been divided into fourths of 2½ As each, the fourth was called

A Sestertius or Nummus, (LLS., or HS) = 2½.

100 Sesterces made an Aureus latterly = 250d., £1 0s. 10d.
1,000 Sesterces made the Sestertium = £10 8s. 4d.

The Libra = 96£ = £4 lawful.

The Talent of Silver = 60 Mina = £250.

The Talent of Gold was the decuple of the talent of silver, at the proportion of 10 for 1, as among the Romans = £2,500.

And was the Military of the Libra, if valued at 16 for 1, as among moderns = 1,000 Libra = £4,000.

“It is understood that the Attic Drachm of silver was exactly our Drachm Troy of 60 grains; The Denarius of the Romans was the 7th part of their ounce, which is supposed to have been exactly our Avoirdupois Ounce; but this is of 437½ grains Troy, which would make the Roman Denarius 62½ grains; and consequently 1/24 more than the Attic Drachm, contrary to the testimony of antiquity, that the Denarius and Drachm were equal. We may very probably conjecture that our Troy weight is taken from the Grecians, from whom our physicians derive their science, and, in copying their receipts, would, of course preserve their weights, which fix the quantum and proportion of ingredients. We may as probably affirm that our Avoirdupois weight it taken from the Romans, from whom, through their colonies and conquests in France, Spain, Germany, Britain, we derive our agriculture and commerce. Accordingly we observe that, while we weigh our physic by the Troy or Grecian weights, we use the Avoirdupois or Roman for the productions of agriculture and general articles of commerce; and since antiquity affirms that these two series were united by the equality of the Drachm and Denarius, we must conclude that in progress of time they have become a little separated in use with us, to wit, 1/24 part as before noted.

“But the point at which their separation has been arrested and fixed is a very remarkable one: 1,000 ounces avoirdupois make exactly a cubic foot of water. This integral, decimal, and cubical relation induces a presumption, that while deciding amongst the varieties and uncertainties which, during the ruder ages of arts, we know had crept into the weights and measures of England, they had adopted for their standard those which stood so conveniently connected through the medium of a natural element, always at hand to be appealed to.

“The ounce Avoirdupois being thus fixed at the thousandth part of a cubic foot of water, the Winchester bushel, of 2,150.4 cubic inches, filled with water, would weigh 77.7 lb Avoirdupois, and, filled with wheat of statute quality, weighed 64 lb. Amidst the varieties discovered between the standard weights, Avoirdupois and Troy, in their different depositories, it would be discovered that all of them were a little over or under this proportion; and this would suffice to give this proportion the preference, and to fix the standard relation between the Avoirdupois and Troy pounds at that which Nature has established between the weights of water and wheat; and
the Troy grain, 5,760 of which make the pound Troy, would be so adjusted as that 7,000 of them would make the pound Avoirdupois—for 7,000: 5,760: :77.7:64. Exactly the same proportion is known to exist between the dry and liquid measures—for the corn gallon contains 272 cubic inches, and the ancient liquid gallon of Guildhall 224 cubic inches—so that the system of weights and measures, Avoirdupois and Troy, dry and liquid, are found to be in the simple relation of the weights and measures of the two obvious and natural subjects, water and wheat: that is to say, the Pound Avoirdupoise: Pound Troy: : the weight of water: weight of wheat: : the bulk of the corn gallon : the bulk of the liquid gallon; or, 7,000: 5,760: :77.7: 64: :272: 224.

“These weights and measures seem to have been so combined as to render it immaterial whether a commodity was dealt out by weight or measure; for the dry gallon of wheat, and the liquid one of wine, were of the same weight; and the Avoirdupois pound of wheat, and the Troy pound of wine, were of the same measure. A more natural, accurate, and curious reconciliation of the two systems of Greece and Rome, which happened to be found in use, could not have been imagined; and the extension of the connection, from weights and measures to coins, as is done so integrally by our lawful currency, which makes the penny of 6 grains of silver as was the Roman As, has completed the system.

“It is true, we find no trace, either in English or American history, that these were the views which determined the relation existing between our weights, measures, and moneys; but it is more difficult to conceive that such a series of combinations should have been merely accidental, and that history should have been silent about them.

“I am aware that there are differences of opinion as to the ancient weights and coins. Those here stated are taken from Brerewood, Kennet, Ainsworth, and the Encyclopaedia, and are as likely to have prevailed with our ancestors as the opinions opposed to them.”

<table>
<thead>
<tr>
<th>Guineas</th>
<th>. . .</th>
<th>26s. . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>British gold coin not milled, gold coin of Spain and France, chequins, Arabian gold, moidores of Portugal</td>
<td>. . .</td>
<td>5s. dwt.</td>
</tr>
<tr>
<td>Coined gold of the empire</td>
<td>. . .</td>
<td>5s. dwt.</td>
</tr>
<tr>
<td>English milled silver money, in proportion to the crown, at</td>
<td>. . .</td>
<td>5s. 10d.</td>
</tr>
<tr>
<td>Pieces of eight of Mexico, Seville &amp; Pillar, ducatons of Flanders, French ecus, or silver Louis, crusados of Portugal</td>
<td>3 3/4 dwt.</td>
<td>. . .</td>
</tr>
<tr>
<td>Peru pieces, cross dollars, and old rix dollars of the empire</td>
<td>3½d. dwt.</td>
<td>. . .</td>
</tr>
<tr>
<td>Old British silver coin not milled</td>
<td>. . .</td>
<td>3 3/4</td>
</tr>
</tbody>
</table>
The first symptom of the depreciation of our present paper-money, was that of silver dollars selling at six shillings, which had before been worth but five shillings and ninepence. The assembly thereupon raised them by law to six shillings. As the dollar is now likely to become the money-unit of America, as it passes at this rate in some of our sister-states, and as it facilitates their computation in pounds and shillings, &c e converso, this seems to be more convenient than its former denomination. But as this particular coin now stands higher than any other in the proportion of 133½ to 125, or 16 to 15, it will be necessary to raise the others in proportion.
QUERY XXII
The public Income and expences?

The nominal amount of these varying constantly and rapidly, with the constant and rapid depreciation of our paper-money, it becomes impracticable to say what they are. We find ourselves cheated in every essay by the depreciation intervening between the [314] declaration of the tax and its actual receipt. It will therefore be more satisfactory to consider what our income may be when we shall find means of collecting what our people may spare. I should estimate the whole taxable property of this State at an hundred millions of dollars, or thirty millions of pounds our money. One per cent on this, compared with anything we ever yet paid, would be deemed a very heavy tax. Yet I think that those who manage well, and use reasonable economy, could pay one and a half per cent, and maintain their household comfortably in the meantime, without aliening any part of their principal, and that the people would submit to this willingly for the purpose of supporting their present contest. We may say then that we could raise, and ought to raise, from one million to one million and a half of dollars annually, that is from three hundred to four hundred and fifty thousand pounds, Virginia money.

Of our expences it is equally difficult to give an exact state, and for the same reason. They are mostly stated in paper money, which varying continually, the legislature endeavors at every session, by new corrections, to adapt the nominal sums to the value it is wished they would bear. I will state them therefore in real coin, at the point at which they endeavor to keep them.

1 Altered in edition of 1787 to “12,310.”
2 Altered in edition of 1787 to “7523½.”
The annual expenses of the general assembly are about 20,000
The governor 3,333½
The council of state 10,666½
Their clerks 1,166½
 Eleven judges 11,000
The clerk of the chancery 666½
The attorney general 1,000
 Three auditors and a solicitor 5,333½
Their clerks 2,000
The treasurer 2,000
His clerks 2,000
The keeper of the public jail 1,000
The public printer 1,666½
Clerks of the inferior courts 43,333½
Public levy: this is chiefly for the expenses of criminal justice
County levy, for bridges, court-houses, prisons, &c. [316]
Members of Congress
Quota of the Federal civil list, supposed \( \frac{1}{6} \) of about 78,000 dollars
Expences of collecting, six per cent. on the above
The clergy received only voluntary contributions; suppose them on an average \( \frac{1}{8} \) of a dollar a tythe on 200,000 tythes
Contingencies, to make round numbers not far from truth

Dollars or 98,571\( \frac{3}{4} \) guineas. This estimate is exclusive of the military expense. That varies with the force actually employed, and in time of peace will probably be little or nothing. It is exclusive also of the public debts, which are growing while I am writing, and cannot therefore be now fixed. From these articles if we strike out that of 200,000 dollars for the maintenance of the poor, and 12,000 dollars for its collection, which being merely a matter of charity, cannot be deemed expended in the administration of government; and the 25,000 dollars for the services of the clergy which neither makes [317] part of that administration, more than what is paid to physicians, or lawyers, and being voluntary, is either much or nothing as every one pleases, it leaves $223,000, equal to 47,785 guineas, the real cost of the apparatus of government with us. This, divided among the actual inhabitants of our country comes to about two fifths of a dollars, 22d sterling, or 42 sols, the price which each pays annually for the protection of the residue of his property, that of his person and the other advantages of a free government. The public revenues of Great Britain divided in like manner on its inhabitants would be sixteen times greater. Deducting the aggregate sum of 460,000 dollars\( ^1 \) from the million and a half of dollars which we before supposed might be annually paid without distress, we may conclude that this state can contribute one million of dollars annually towards supporting the federal army, paying the federal debt, building a federal navy, or opening roads, clearing rivers, forming safe ports, and other useful works.

To this estimate of our abilities, let me add a word as to the application of them, if, when cleared of the present contest, and of [318] the debts with which that will charge us, we come to measure force hereafter with any European power. Such events are devoutly to be deprecated. Young as we are, and with such a country before us to fill with people and with happiness, we should point in that direction the whole generative force of nature, wasting none of it in efforts of mutual destruction. It should be our endeavor to cultivate the peace and friendship of every nation, even of that which has injured us most, when we shall have carried our point against her. Our interest will be to throw open the doors of commerce, and to knock off all its shackles, giving perfect freedom to all persons for the vent of whatever they may choose to bring into our ports, and asking the same in theirs. Never was so much false arithmetic employed on any subject, as that which has been employed to persuade nations that it is their interest to go to war. Were the
money which it has cost to gain, at the close of a long war, a little town, or a little territory, the right to cut wood here, or to catch fish there, expended in improving what they already possess, in making roads, opening rivers, building ports, improving the arts [319] and finding employment for their idle poor, it would render them much stronger, much wealthier and happier. This I hope will be our wisdom. And perhaps, to remove as much as possible the occasions of making war, it might be better for us to abandon the ocean altogether, that being the element whereon we shall be principally exposed to justle with other nations: to leave to others to bring what we shall want, and to carry what we can spare. This would make us invulnerable to Europe, by offering none of our property to their prize, and would turn all our citizens to the cultivation of the earth; and, I repeat it again, cultivators of the earth are the most virtuous and independant citizens. It might be time enough to seek employment for them at sea, when the land no longer offers it. But the actual habits of our countrymen attach them to commerce. They will exercise it for themselves. Wars then must sometimes be our lot; and all the wise can do, will be to avoid that half of them which would be produced by our own follies, and our own acts of injustice; and to make for the other half the best preparations we can. Of what nature should these be? [320] A land army would be useless for offence, and not the best nor safest instrument of defence. For either of these purposes, the sea is the field on which we should meet an European enemy. On that element it is necessary we should possess some power. To aim at such a navy as the greater nations of Europe possess, would be a foolish and wicked waste of the energies of our countrymen. It would be to pull on our own heads that load of military expense which makes the European labourer go supperless to bed, and moistens his bread with the sweat of his brows. It will be enough if we enable ourselves to prevent insults from those nations of Europe which are weak on the sea, because circumstances exist, which render even the stronger ones weak as to us. Providence has placed their richest and most defenceless possessions at our door; has obliged their most precious commerce to pass, as it were, in review before us. To protect this, or to assail, a small part only of their naval force will ever be risked across the Atlantic. The dangers to which the elements expose them here are too well known, and the greater dangers to which they would be ex- [321] posed at home were any general calamity to involve their whole fleet. They can attack us by detachment only; and it will suffice to make ourselves equal to what they may detach. Even a smaller force than they may detach will be rendered equal or superior by the quickness with which any check may be repaired with us, while losses with them will be irreparable till too late. A small naval force then is sufficient for us, and a small one is necessary. What this should be, I will not undertake to say. I will only say, it should by no means be so great as we are able to make it. Suppose the million dollars, or 300,000 pounds which Virginia could annually spare without distress, to be applied to the creating a navy. A single year’s contribution would build, equip, man, and send to sea a force which should carry 300 guns. The rest of the confederacy, exerting themselves in the same proportion, would equip in the same time 1500 guns more. So that one year’s contributions would set up a navy of 1800 guns. The British ships of the line average 76 guns; their frigates 38. 1800 guns then would form a fleet of 30 ships, 18 of which might [322] be of the line, and 12 frigates. Allowing 8 men, the British average, for every gun, their annual expence, including subsistance, cloathing, pay, and ordinary repairs, would be about 1280 dollars for every gun, or
2,304,000 dollars for the whole. I state this only as one year’s possible exertion, without deciding whether more or less than a year’s exertion should be thus applied.

The value of our lands and slaves, taken conjunctly, doubles in about twenty years. This arises from the multiplication of our slaves, from the extension of culture, and increased demand for lands. The amount of what may be raised will of course rise in the same proportion.
QUERY XXIII
The histories of the state, the memorials published in its name in the time of its being a colony, and the pamphlets relating to its interior or exterior affairs present or antient?

Captain Smith, who next to Sir Walter Raleigh may be considered as the founder [323] of our colony, has written its history, from the first adventures to it till the year 1624. He was a member of the council, and afterwards president of the colony; and to his efforts principally may be ascribed its support against the opposition of the natives. He was honest, sensible, and well informed; but his style is barbarous and uncouth. His history, however, is almost the only source from which we derive any knowledge of the infancy of our State.

The reverend William Stith, a native of Virginia, and president of its college, has also written the history of the same period, in a large octavo volume of small print. He was a man of classical learning, and very exact, but of no taste in style. He is inelegant, therefore, and his details often too minute to be tolerable, even to a native of the country, whose history he writes.

Beverley, a native also, has run into the other extreme, he has comprised our history from the first propositions of Sir Walter Raleigh to the year 1700, in the hundredth part of the space which Stith employs for the fourth part of the period. [324]

Sir William Keith has taken it up at its earliest period, and continued it to the year 1725. He is agreeable enough in style, and passes over events of little importance. Of course he is short, and would be preferred by a foreigner.

During the regal government, some contest arose on the exaction of an illegal fee by governor Dinwiddie, and doubtless there were others on other occasions not at present recollected. It is supposed that these are not sufficiently interesting to a foreigner to merit a detail.

The petition of the council and burgesses of Virginia to the king, their memorials to the lords, and remonstrance to the commons in the year 1764, began the present contest: and these having proved ineffectual to prevent the passage of the stamp-act, the resolutions of the house of burgesses of 1765 were passed declaring the independence of the people of Virginia of the parliament of Great Britain, in matters of taxation. From that time till the declaration of independence by Congress in 1776, their journals are filled with assertions of the public rights. [325]

The pamphlets published in this state on the controverted question, were,


1774, A summary View of the rights of British America.1

1774, Considerations &c., by Robert Carter Nicholas.

Since the declaration of independance this State has had no controversy with any other, except with that of Pennslyvania, on their common boundary. Some papers on this subject passed between the executive and legislative bodies of the two states, the result of which was a happy accommodation of their rights.

To this account of our historians, memorials and pamphlets, it may not be unuseful to add a chronological catalogue of American state-papers, as far as I have been able to collect their titles. It is far from being either complete or correct. Where the title alone, and not the paper itself, has come under my observation, I cannot answere for the exactness of the date. Sometimes I have not been able to find any date at all, and sometimes have not been satisfied that such a paper exists. An extensive collection of papers of this description has been for sometime in a course of preparation by a gentleman2 fully equal to the task, and from whom, therefore, we may hope ere long to receive it. In the meantime accept this as the result of my labours, and as closing the tedious detail which you have so undesignedly drawn upon yourself. [327]


1548, 2. E. 6. An act against the exaction of money, or any other thing, by any officer for license to tradffe into Iseland and Newfoundland, made in An. 2. Edwardi sexti. 3. Hakl. 131.

1578, June 11. 20. El. The letters-patent granted by her Majestie to Sir Humphrey Gilbert, knight, for the inhabiting and planting of our people in America. 3. Hakl. 135.

1583, Feb. 6. Letters-patent of Queen Elizabeth to Adrian Gilbert and others [328] to discover the northwest passage to China. 3. Hakl. 96.

The letters-patent granted by the Queen’s majestie to M. Walter Raleigh, now knight, for the discovering and planting of new lands and countries, to continue the space of six years and no more. 3. Hakl. 243.


1603, Nov. 8. Lettres de Lieutenant General de l’Acadie et pays circonvoisins pour
le Sieur de Monts. L’Escarbot. 417.


An ordinance and constitution enlarging the council of the two colonies in Virginia and Amer-[329]ica, and augmenting their authority, M. S.


1610, April 10. Jac. 1. Letters-patents to the E. of Northampton, granting part of the island of Newfoundland. 1. Harris. 816.


1617, Jac. 1. A commission to Sir Walter Raleigh. Qu.


1620, Nov. 3. Jac. 1. A grant of New-England to the council of Plymouth.


1623. A grant to Sir Edmund Ployden, of New Albion. Mentioned in Smith’s examination. 82.


1624, Sep. 29. 22 Jac. 1. A proclamation concerning tobacco. 17. Rym. 621.

1624, Nov. 9. 22 Jac. 1. De concessione demiss, Edwardo Ditchfield et aliis. 17. Rym. 633. [331]

A proclamation for the utter prohibiting the importation and use of all tobacco which is not of the proper growth of the colony of Virginia and the Somer islands, or one of them. 17. Rym. 668.

1625, Mar. 2. 22 Jac. 1. De commissione directa Georgio Yardeley militi et aliis. 18. Rym. 311.

1625, Apr. 9. 1 Car. 1. Proclamatio de herba Nicotiana. 18. Rym. 19.
<table>
<thead>
<tr>
<th>Date</th>
<th>Act/Proclamation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1625, May 13</td>
<td>A proclamation for settl[ing]he plantation of Virginia. 18. Rym. 72.</td>
</tr>
<tr>
<td>1626, Jan. 31</td>
<td>Commissio directa a Johanni Wolstenholme militi et aliis. 18. Rym. 831.</td>
</tr>
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1633, Sep. 23. 9 Car. 1. A special commission to Thomas Young to search, discover and find out what ports are not yet inhabited in Virginia and America and other parts thereunto adjoining. 19. Ry. 472.


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[1] Art. 4.—T. J.

[2] Art. 7.—T. J.

[3] Art. 8.—T. J.
Yet in the advertisement of the second edition of Paine’s *Common Sense*, in the *Pennsylvania Evening Post* of Jan. 25, 1776, is stated: “several hundreds are already bespoke, one thousand for Virginia.”

This statement is hardly borne out by Jefferson’s statement at the time, for he wrote to Thomas Nelson from Philadelphia, May 16, 1776: “I wish much to see you here, yet hope you will contrive to bring on as early as you can in convention the great questions of the session. I suppose they will tell us what to say on the subject of independence, but hope respect will be expressed to the right of opinion in other colonies who may happen to differ from them. When at home I took great pains to enquire into the sentiments of the people on that head, in the upper counties I think I may safely say nine out of ten are for it.”

To bid, to set, was the ancient legislative word of the English. Ll. Hlotharri and Eadrici. Ll. Inæ. Ll. Eadwerdi. Ll. Æathelstani.—*T. J.*

Bro. Abr. Corporations, 31, 34. Hakewell, 93.—*T. J.*

Puff. Off. hom. L. 2, c. 6, §. 12.—*T. J.*

June 4, 1781.—*T. J.*

In the original proof-sheets of the *Notes*, now in the New York State Library, this passage reads: “But they might as well have voted that a square inch of linen should be sufficient to make them a shirt, and walk into public view in confidence of being covered by it. Nor would it make the shirt bigger, that they could get no more linen.” The comparison seemed too strong apparently, and all the words after “But,” are stricken out, and in place is inserted in MS. “this danger could not authorize them to call that a house which was none; and if they could fix it at one number, they may at another, till it loses its fundamental character of being a representative body.”

“The delegates were then sitting at Staunton, and had voted that 40 of their number should make a house. There were between 40 and 50 present when motion for the dictator was made, and it was rejected by a majority of 6 only.”—*Note in the edition of 1853.*

This story of a dictator was later the subject of controversy. It was first reintroduced to injure Patrick Henry in the political heats of 1798–9, by suggesting him as the proposed dictator. This was at once denied by the Henry adherents, and later Wirt again did so in his *Life of Henry*. As some of these denials went further than the mere question of the *personnel* of the dictator, Jefferson endeavored later to obtain accounts of what actually passed, by writing to different friends. In reply to one of these inquiries, Archibald Stuart wrote him (Sparks MSS., Harvard College) from Staunton, Sept. 8, 1818:
“Dear Sir,—I presume you have seen Mr. Wirt’s Sketches of the life of Patrick Henry; and that he denies Mr. H. favored the project of Establishing a Dictator during the revolutionary War.—Even doubts respecting events of such recent date tend greatly to impair the credit of History. There are many living now who witnessed the part Mr. Henry took on that subject.—After the Assembly was dispersed at Charlottsville in the year 1781 it met in Staunton where Mr Geo. Nicholas a member of that body proposed that a Dictator be established in this Commonwealth who should have the power of disposing of the lives and fortunes of the Citizens thereof without being subject to account.—In support of this resolution he observed that the Country was overrum by the Enemy and that the Operation of the Govt was nearly suspended:—That although the powers proposed to be conferred were very great the character he proposed to fill the office would remove all apprehensions arising from the abuse of them—that this character was Genl. Washington—that he was our fellow citizen, that we had a right to command his services and that he had no doubt but that on such an Occasion he would obey the call of his country.—In the course of his speech he refered to the practice of the Romans on similar occasions. After Mr. Nicholas sat down Mr. Henry addressed the Chair; he observed it was immaterial to him whether the Officer proposed was called a Dictator or a Governor with enlarged powers or by any other name yet surely an officer armed with such powers was necessary to restrain the unbridled fury of a licentious enemy and concluded by seconding the Motion.—

“On the other hand it was contended by Mann Page from Spottsylvania and several other Members;—That our Affairs were not desperate, That the pressure we felt was but temporary, That the Govt. was still efficient, That the spirit of the people was unbroken, That it was unbecoming in their representatives to damp their ardor by an Act of despair—that they had equal confidence with the mover of the resolution in the Integrity of Genl. Washington, but that he nor no other man ought to be armed with such unlimited powers.—That they well know he would not accept the office—that if he was willing to accept it, he was better employed at the head of the Army than in the exercise of powers which would render him odious to the people—After a lengthy discussion the proposition was negatived.—

“I was present at this discussion and could easily discover that the proposition was not relished by the people. Their feelings were of a different character; had the enemy advanced they would have risen in mass to repel them.—

“I communicated these facts to you shortly after they took place.—

“I am yours most sincerely

“Arch: Stuart.”

[1] This is the *Report of the Revisors*, prepared by Jefferson, Wythe, and Pendleton, and reported to the legislature June 18, 1779.


[1] The instrument proper to them is the Banjar, which they brought hither from Africa, and which is the original of the guitar, its chords being precisely the four lower chords of the guitar.—*T. J*.

[2] Phillis Wheatley, author of a number of poems, published at different times, some of which were collected into a volume, published in London in 1773, which has been several times reprinted. See *Allibone* and *Gregoire*.


[1] In the edition of 1853 the names of Diogenes and Phædon are inserted at this point.


[1] In a letter to Lithgow (Jan. 4, 1805) concerning a revised edition of the *Notes*, Jefferson wrote:

“I should in that case certainly qualify several expressions in the nineteenth chapter, which have been construed differently from what they were intended. I had under my eye when writing, the manufactures of the great cities in the old countries, at the present time, with whom the want of food and clothing necessary to sustain life, has begotten a depravity of morals, a dependence and
corruption, which renders them an undesirable accession to a country whose morals are sound. My expressions look forward to the time when our own great cities would get into the same state. But they have been quoted as if meant for the present time here. As yet our manufactures are as much at their ease, as independent and moral as our agricultural habits, and they will continue so as long as there are vacant lands for them to resort to; because whenever it shall be attempted by the other classes to reduce them to the minimum of subsistence, they will quit their trades and go to laboring the earth. A first question is, whether it is desirable for us to receive at present the dissolute and demoralized handicraftsmen of the old cities of Europe? A second and more difficult one is, when even good handicraftsmen arrive here, is it better for them to set up their trade, or go to the culture of the earth? Whether their labor in their trade is worth more than their labor on the soil, increased by the creative energies of the earth? Had I time to revise that chapter, this question should be discussed, and other views of the subject taken, which are presented by the wonderful changes which have taken place here since 1781, when the Notes on Virginia were written. Perhaps when I retire, I may amuse myself with a serious review of this work; at present it is out of the question. Accept my salutations and good wishes.”


[4] In the edition of 1787 from the word “From” to “25,000” dollars is cancelled and the following passage substituted: “So it is the maintenance of the poor, which being merely a matter of charity cannot be deemed expended in the administration of government. And if we strike out the $25,000” etc.

[1] Altered in edition of 1787 to read: “Deducting even the double of the expenses of government, as before estimated, from the million and a half,” etc.

[1] By the author of these notes.—T. J. See ante, ii, 49.

[2] Mr. Hazard.—T. J.