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American Moses: Alexander Dallas Bache and the Founding of the National Academy of Sciences [DRAFT, March 1, 2007]

This is an extract from a chapter on the motivation by Alexander Dallas Bache and his colleagues for pursuing the idea of founding a national academy of sciences in 1862 and 63. It is important for my purposes because I am interested in the role of science in the emerging American nation-state in the 19th century, and Bache serves as a “test case.” It is sometimes suggested that (or at least left open whether) the Lazzaroni, i.e. the group around Bache, took advantage of the national crisis so as to bring about an institution that would serve the country but also their personal interest because of the laurels that came with membership. This assumes that they viewed the political situation primarily as a setting and an opportunity for their long-standing plans. I will try to briefly lay out the chapter’s line of argument in the colloquium; what follows is an excerpt and attempt to reconstruct, from his correspondence with Francis Lieber, Bache’s attitude towards the war and of the role of science in a time of national crisis.

If you are pressed for time and would like to take a shortcut, skip the intro to my analysis of Bache’s letter and jump to page 5 (to “4. ‘Ignorant of Scriptural Injunctions’”).

[...] **3. The Bache-Lieber Correspondence**

What I will focus on is Bache’s correspondence with Francis Lieber, a German émigré who, in 1856, had moved to New York City from South Carolina for a chair in political science. In 1860, Bache and Lieber had known each other (or, of each other) for thirty years, but their acquaintance had never grown into a friendship. Lieber’s work was mostly unrelated to Bache’s, and the Prussian was outside of Bache’s circle of professional friends and political contacts. It was only in 1860, at a time the country was headed for civil war, that they began writing each other on a regular basis.

Lieber was born in Berlin in 1798 which made him eight years Bache’s senior. As a student at the University of Berlin, he had become involved in the *Burschenschaften*--German fraternities which gave political activity in response to the French Revolution and occupation of German states an anti-French and anti-modernist political and cultural direction. In 1821, his romantic political ideas led Lieber to travel to Greece where he intended to support the Moreans in their struggle against the Turks, a conflict which Lieber and other volunteers from perceived to be a romantic Greek struggle for independence and political freedom. The project failed. Lieber returned home broke and disillusioned with Greece. But because of his political interests and activities, Prussia now barred the returning Lieber from continuing his university studies. In the winter of 1825-26, Lieber left for England and, a year later, had moved on to Boston with letters of recommendation and a newly-wed wife ready to follow him from London as soon as he was ready to support her. Lieber was ambitious and culturally versed, and in the U.S. he quickly established ties among a political and intellectual leadership. But he lacked a steady and secure occupation, and a reliable income. After several attempts at business, publishing, and translation, he was elected to a chair at the University of South Carolina in 1835. Lieber was much more at home among intellectual circles in New England or New York. He felt stifled by the cultural and political climate in South Carolina and

frequently spent the summers in the North to keep in touch with friends and fellow intellectuals there.

Lieber's and Alexander Dallas Bache's paths first crossed in the late 1830s, at a time when the idea of moving to Philadelphia must have been attractive to the South Carolina professor. The Girard College trustees had commissioned Lieber--whom they considered to be an expert on educational reform--to develop a plan for a school for orphans. Lieber suggested that a two-year research trip be made to Europe so as to facilitate the sound development of the college's educational plan and he would have liked to go himself. But it was Bache who went instead. The two men, therefore, were no strangers when they assumed their correspondence in 1860. Their mutual acquaintance had been refreshed the previous year when both had delivered speeches at a public meeting in commemoration of the recently deceased Baron Alexander von Humboldt.¹

It was Lieber who got the ball rolling by asking the superintendent to support Arctic explorer Isaac Hayes. In 1855, the twenty-five year old Hayes had returned from a two-year expedition to the Arctic led by Elisha Kent. On board the exploring vessel Hayes had served as a medical doctor and he was now keen to investigate an "open polar sea" which he hoped to find.² In his reply to Lieber, Bache sweepingly endorsed the manifold scientific benefits which he expected Hayes' expedition to have. "The unanimity with which men of science have spoken on this subject," he dictated his amanuensis, "authorizes the strongest appeal in behalf of Dr Hayes and his plans."³ By September, Bache had assumed a more personal tone toward Lieber as he was responding to another request to support a young man. It was Oscar on whose behalf Lieber had now written, his oldest son and a promising geologist. When his parents and two brothers had finally left South Carolina for New York City four years earlier, Oscar had stayed and adopted a thoroughly Southern perspective on culture and politics. The rift between North and South widened at a quicker pace after 1856, and so did the one between Oscar and his father. As war was looming, Francis Lieber (now a professor of political science at Columbia University) found his son stubbornly holding on to the wrong side.

The Coast Survey must have struck Lieber as a potential "reintegrator" for his geographer son. From June to August 1860, that organization had sponsored a trip by Oscar to Labrador, and Bache now wrote to his father from his camp near Wachusett Mountain in Massachusetts that Oscar had granted him permission to have the paper Lieber's son had written there.⁴ Bache was confirming this decision to Oscar's father, asking the latter to send the manuscript, and this implies that Francis Lieber could well have been the one who had suggested that Bache take a look at it, perhaps for publication. Oscar's affiliation with the Coast Survey, which he, Oscar's father, sought to support and strengthen, allowed Lieber to entertain the vague hope of being able to reconnect Oscar to politics, culture, and his family in the North. Bache could invite hopes to become a "reintegrator" because he was not merely a scientist but because he represented the national dimension of Oscar's profession. But reintegration failed. Soon Oscar decided to

¹ Alexander Dallas Bache, "Tribute to the Memory of Humboldt", *Pulpit and Rostrum*, June 15, 1859, 127-140, quoted in: Hugh Richard Slotten, *Patronage, Practice, and the Culture of American Science: Alexander Dallas Bache and the U.S. Coast Survey* (Cambridge and New York: Cambridge University Press, 1994), p. 209.

² http://home6.inet.tele.dk/ron/greenland/hayes/hayes_eng.htm [November 22, 2006].

³ Alexander Dallas Bache to Francis Lieber, March 14, 1860, Lieber Papers, Huntington Library.

⁴ Alexander Dallas Bache to Francis Lieber, September 18, 1860, Lieber Papers, Huntington Library.

join the Confederate army. His two younger brothers, Hamilton and Norman, were fighting for the union, the former in the West along the Mississippi, the latter on the Peninsula South of Washington. In the spring of 1861 Oscar and Norman were in the same theater of war and their units were likely to engage in battle.

With the exception of a letter by Lieber to Bache in December 1861, the correspondence between the two did not pick up again until March 1862 when it evolved into an almost intimate exchange.⁵ Bache felt exhausted from the burdens of war and of work, and instead of turning to one of his longtime friends and scientific peers, he reconnected to Lieber who was quick to reciprocate. He invited Bache to New York (“[if] you must leave Wash. for the restoration of health”) and the following day, without waiting for Bache’s reply, he wrote again. Lieber asked whether the Washington-based superintendent could hold a map of Eastern Virginia for his youngest son Norman who was encamped nearby.⁶ There must have been other ways of getting the map to Norman but Lieber preferred Bache. Perhaps Norman’s father felt the need to know that his son would be in touch with a friendly spirit nearby. He might have sensed that Bache, who did not have children, would not mind taking on the role of a surrogate parent closer to the front.

Lieber ended this letter by reporting that

I am meditating the invention of a nail and handbrush with which my monobrachyte can wash his sole hand, without the assistance of another person. Will you not propose to Secr. [of War Edwin M.] Stanton to buy the patent of me, for the use of the army? How easily we sport with that, which but yester-day filled our eyes!

It was Lieber’s son Hamilton who had lost an arm at Fort Donelson on the Mississippi River and who was returning to his parents in New York City.⁷ Lieber was writing this letter across the whole width of the sheet instead of folding the letter in the middle, allowing for an uninterrupted flow of the pen. To Bache he wrote openly about the burden of having three sons in the war, two of them still fighting on opposing sides in the same campaign, and one severely handicapped. Only Norman remained unharmed, if one considers Oscar’s decision to join the Confederate army a loss to his father. It was Norman, too, for whom Lieber wanted Bache to hold the map of Eastern Virginia. With Oscar in the South and Hamilton returning home severely injured, Lieber was doing what he could for Norman--sending him the council of a map and the care of Bache (a producer of maps and expert in matters of orientation). By suggesting, with irony, that Bache forward his invention to the Secretary of War, he signaled that he was aware that his experience was all too common. It also provided him with an opportunity to vent his

⁵ Francis Lieber to Alexander Dallas Bache, December 14, 1861, contemporary copy enclosed in Francis Lieber to William Graham Sumner, December 14, 1861, quoted in: Frank Freidel, *Francis Lieber. Nineteenth Century Liberal* (Baton Rouge: Louisiana State University Press, 1947), p. 322 fn. 12. The letter to which Lieber responded on March 22 has not been preserved, and neither has an earlier letter by Bache which reached Lieber the same day.

⁶ Francis Lieber to Alexander Dallas Bache, March 23, 1862, box 30, Bache Papers, Rhees Collection, Huntington Library.

⁷ Freidel, *Francis Lieber*, 324 f.

pain in a letter to a friend with whom he shared the premise that they were to provide unflinching support for the union.

But Lieber's letters soon assumed a harsher tone. On May 1, he wrote to Bache that there must be "No Armistice, for the sake of all that is sacred, sensible or worthy!" He added that "Blow upon Blow, ought to be our motto and only motto for the next 12 months."⁸ "Yes Blow upon Blow Hard, Harder, Hardest" he asserted five days later.

I think of the blacksmith, what was his name? who nailed his apron to a staff and became the founder of a Persian Dynasty. We might adopt that popular American symbol of an arm with a hammer; over Blow upon Blow, under it Harder, Harder, Hardest.

You see I had your note of May 5. It makes me feel glad, for somehow, I had imagined you will, and as Patrick our sub-janitor said, when I told him that my son had lost his arm: 'That won't do at all, Sir, at all, at all', shaking his head and repeating: 'It won't do.'

The implications of Lieber's letter are manifold. A closer understanding between Bache and Lieber went along with homoerotic undercurrents of Lieber's uncompromising motto. A new level of intimate understanding had opened up that legitimated a rougher, less circumspect, and in this sense adolescent behavior. Lieber's reference was to Kaveh, the Ironsmith, who was canonized by the tenth century Persian poet Abolqasem Ferdowsi and was remembered to have fought a despotic ruler who had killed seventeen of his sons and fed their brains to serpents. Kaveh led a revolting people to the palace and reinstated the rightful ruler Feraydun.⁹ Lieber imagines himself to be the Kaveh of his own time, incensed by Oscar's treason, the loss of Hamilton's arm, and Norman's continued endangerment. The arm assumes additional meaning through the blacksmith and his prominent use of it. With Kaveh, a reference presupposing a significant depth of education, Lieber transposes his son's lost arm into the driving symbol for eliminating the enemy and, with reference to Kaveh, for establishing a new, an American dynasty. The simple repetition and augmentation of the underlined motto add to its violence.

Lieber ended this letter with this story:

Pay me back in kind for the following, which I have from a letter of a superior officer: The rebel general was shot, at Pea Ridge (I hope this name wits the duke of _____ was shot by a German, who two days after became quite melancholy. He was comforted by everyone, and told that a soldier had not to grieve for the killing an enemy, general or not. Oh, said the man in the drollest German dialect, it is not that which makes me so sad, but the general had patent leather boots, and I was such an ass as to miss the only opportunity I shall ever

⁸ Francis Lieber to Alexander Dallas Bache, May 1, 1862, box 31, Bache Papers, Rhees Collection, Huntington Library.

⁹ Ahmad Karimi-Hakkak, "Revolutionary Posturing: Iranian Writers and the Iranian Revolution of 1979", *International Journal of Middle East Studies*, Vol. 23, No. 4. (Nov., 1991), pp. 525 ff.

have in my life of getting a pair of patent leather boots. It is that which I cannot comfort myself about.¹⁰

While the German's comrades thought he felt sad about having killed a general, he really only cared about the general's boots. Comic relief was provided by the realization that a confederate general's death is nothing to feel melancholic about. Where the German soldier's counterpart expects deference, even toward the enemy, the unreconstructed German immigrant comes to realize that the war opens up a rare opportunity for personal enrichment. Perhaps this view of the war, not as a collective enterprise, but within more familiar coordinates of personal ambition and interests, was reassuring.

In his other letters, Lieber picks up on these themes. On May 12, for example, he wrote to Bache in celebration of recent union victories and he included a drawing of a raised arm holding a hammer. As a reference to his motto, he decorated the logo by adding the letters "BUB" at the top and "I-I-I" at the bottom. "Why I write?" he asked. "For no earthly purpose but the cause is that I must talk to some one about our boys' successes."¹¹ Lieber implied that he had few people to talk to about the union's military successes, even among his family, perhaps out of deference toward his son Hamilton and his wife. They may not have appreciated the good news in the way Lieber expected Bache to appreciate it--in an almost juvenile, boyish way. The union soldiers, in this shared paternal perception, were Bache's and Lieber's "boys." But Lieber's letter suggests that he and his friend could not openly display their feelings and celebrate their "sons'" success because of the inadequacy of what they perceived to be a loss of posture. Lieber took for granted that he and Bache were part of the nation's cultural and political backbone while they yearned for a more immediate and a less inhibited exchange of views and feelings.¹²

4. "Ignorant of Scriptural Injunctions"

It is obvious that Bache must have shared some of these views, but what exactly prompted him to engage in this kind of correspondence with Lieber? What made Bache overlook or tolerate Lieber's rougher side--those dimensions of his personality which caused Oliver Wolcott Gibbs to complain that for a "man of talent" Lieber was "a perfect hog."¹³

Few letters remain to shed light on Bache's attitude. There is a September 25, 1860 letter written in triangulation camp and an earlier one dated August 20, 1861, in which Bache made suggestions for the selection of army officers. It seems that some time in mid-May, Bache visited Lieber at his home in New York (where he also met Hamilton

¹⁰ Francis Lieber to Alexander Dallas Bache, May 6, 1862, box 31, Bache Papers, Rhees Collection, Huntington Library.

¹¹ Francis Lieber to Alexander Dallas Bache, May 12, 1862, box 31, Bache Papers, Rhees Collection, Huntington Library.

¹² Other letters by Francis Lieber to Alexander Dallas Bache which I am not discussing here: May 9, 14, 16, and 24, 1862, box 31, Bache Papers, Rhees Collection, Huntington Library.

¹³ Oliver Wolcott Gibbs to Alexander Dallas Bache, March 25, 1860, box 21, Bache Papers, Rhees Collection, Huntington Library.

who was still recovering).¹⁴ It seems promising to take a closer look at a letter Bache wrote on May 25, 1862, shortly after his New York visit. In this letter, Bache responded to Lieber's May 6 story of the German Union soldier.

This is the background to Bache's letter: A few days before he sat down to write, the Chief of the Topographical Engineers with the Army of the Rappahannock, Lt. Col. J. N. Macomb, had conveyed to Bache a story of a Union soldier mistaking a Coast Survey triangulation point for a boundary marker. Coast Survey officers had been at work in mapping the Northern shore of the Rappahannock River during General McClelland's Peninsula Campaign in May 1862.¹⁵ Having had difficulties to locate triangulation point "Scott", they learned how the problem had arisen: [I]t seems that when our forces first advanced upon the vicinity," Macomb wrote,

one of our own men of Genl. Augur's command discovered the stone marking the triangulation point 'Scott' and seeing the initials upon it U. S. C. S at once judged it to be a monument to mark a point of the boundary between the United States and the Confederate States as claimed by the rebels! and in his patriotic ire he plucked it up and brought it into camp as a trophy; hence our difficulty in finding the exact point in the ploughed field once occupied in the progress of your great work; then pursued to advance the interests of commerce but since proved so eminently useful in War.¹⁶

It had not been a confederate soldier who had encumbered the mapping of the Northern Rappahannock shore, but a Union soldier excited to have retrieved a war trophy! Bache now saw an opportunity to reciprocate for the patent-leather story. I will take this opportunity to not only discuss Bache's particular version of the story, but to consider how the letter was phrased and what this implies for Bache's attitude toward Lieber, the nation, and the war.

Bache's letter begins as follows:

Pr.

My dear Sir,

Washington
May 25.

The letter has been written on small-sized stationary designed for private use. Compared to other letters from the period, Bache's handwriting is remarkably easy to read. Bache

¹⁴ This may be inferred from a letter which Lieber began writing on Saturday, May 24, and seems to have finished after receiving Bache's May 25 letter the following week. In this letter, Lieber mentions Bache's visit. Francis Lieber to Alexander Dallas Bache, [May 24, 1862], box 31, Bache Papers, Rhees Collection, Huntington Library.

¹⁵ See J. N. Macomb to Alexander Dallas Bache, May 2, 1862, Record Group 23, Roll 247, National Archives [dscn5944]; also see Albert E. Theberge, "The Coast Survey, 1807-1867, Volume I of the History of the Commissioned Corps of the National Oceanic and Atmospheric Administration," <http://www.lib.noaa.gov/edocs/TITLE.htm#TITLE> [November 28, 2006].

¹⁶ J. N. Macomb to Alexander Dallas Bache, May 1862 [no exact date legible—according to order on microfilm roll, the letter was written after May 7, thus reaching Bache no sooner than May 8 or 9], Record Group 23, Roll 247, National Archives II, Maryland.

wrote with greater advertency than usual. He marks his letter private (“Pr.”), thus indicating that he was not writing in an official capacity. He takes for granted that to write the letter himself instead of dictating it was not sufficient to signal that it was private. This implies that Bache was used to writing official correspondence in his own hand. We can infer that the superintendent lived a modest lifestyle. This impression of earnest and dedicated work is corroborated here by the salutation’s placement in a line with the letter’s date. Bache intuitively saved space and sought to economize. “My dear Sir” is both formal (“dear”) and personal (“My”) which conveys both respect and intimacy with perhaps a small amount of irony.

I think I have a match for the [patent] leather story.

Bache refers to Lieber’s May 6 letter and the story of the German soldier who was “melancholic” about having let pass an opportunity to take the boots from a Confederate general who had just been killed. Bache did not immediately respond to Lieber’s request to “pay me back in kind” but waited until May 25. Having received Macomb’s letter on about May 8th he waited for two weeks before he conveyed the story to Lieber. Macomb’s letter had arrived right after Lieber’s, and Bache did not make the connection at first or was uncertain about it. He wrote to Lieber at least once without mentioning Macomb’s story.¹⁷

A story, of course, contains narration and a dramatic plot rather than just information. It has entertaining and aesthetic qualities. When told among friends or colleagues, the presentation of a story presupposes common interests or perspectives--the expectation that one’s humor will not be completely misunderstood. By declaring that he has a “match” for Lieber’s story, Bache turns the latter’s invitation for an exchange of stories into a friendly story-telling contest.

The army of the Rappahannock desiring to base their reconnaissance upon the signals of the Coast Survey of the River, ...

Bache sets the stage. The Army of the Rappahannock under Irvin McDowell in 1862 was part of the larger Union attempt to take Richmond, a main strategic goal during the first years of the war. As mentioned above, Coast Survey staff was involved in providing geographic intelligence and in charting maps for use by the armies. In the given case, the terrain bordering on the Rappahannock River in Virginia was charted with the help of markers left behind by the Coast Survey in its work there since 1851. Bache’s staff had taken care to mark points of triangulation. They now tried to identify them as a basis for their new mapping work.¹⁸

¹⁷ Bache received several letters from Lieber, and it is unlikely that he had not returned any of these favors. Lieber mentions a letter he received from Bache and which he read to one of his classes. See Francis Lieber to Alexander Dallas Bache, May 21, 1862, Bache Papers, Rhees Collection, Huntington Library.

¹⁸ “Annual Report of the Superintendent of the Coast Survey Showing the Progress of That Work During the Year Ending November, 1851,” Ex. Senate Document No. 3, 32nd Congress, 1st Session, p. 50 f. “Care was taken in all cases,” Bache had written, “to mark the points used in a permanent manner for future reference.”

... two of our officers were sent to them + under charge of Col. McComb of the Top^l. Engrs. proceeded to look up the stations used in the triangulations.

The Coast Survey was asked to aid in reconnaissance work by identifying the locations used for triangulation. The Coast Survey could not directly be ordered to conduct such work, we must infer, because it had remained a civilian organization. Its officers were assigned ranks but, when working for the army, they were under the command of the Army's Topographical Engineers.

Bache's style is noteworthy here. His sentences are complex and precise. Note, for example, him shifting the grammatical agent from "army" to "two of our officers." Bache was a concise and experienced writer.

Station "Scott" could not be found.

The anecdotal character of the story is now quite obvious. His colleagues could not identify on the ground a station which was indicated on their Coast Survey map. Instead of referring to "one of the stations," Bache uses the station's name. It is unlikely that Lieber knew it but the precise reference adds literary depth and brevity. It does not matter where the station was. It matters, instead, that a particular station could not be identified. By keeping his paragraphs short, Bache consciously crafts his story by building up narrative tension.

A soldier in General Augur's advance, had found a stone in a ploughed field, marked U.S.C.S + took it to be the boundary mark[ed] by secession between the U.S. + the so called Confederate States!

Brigadier General Christopher Colon Augur's troops were operating close to the enemy lines. As outlined above, the situation referred to by Bache was that a soldier found a marker indicating the position of station "Scott" in the Coast Survey's earlier triangulation, but mistook it for a marker by the seceding states. Several text details and implications are noteworthy here.

The field had recently been ploughed which indicates that civilian life had not come to a complete standstill or had only recently been interrupted. Perhaps the stone found by the soldier had been brought to the surface by the plough. This would explain why the marker could not be found. Bache takes for granted that Lieber knows about developments on the battlefield and that there is no need to contextualize Augur's activities on the peninsula.

Why does Bache feel that this story is a match for Lieber's "patent leather story"? If it were simply the soldier's ignorance which Bache was trying to get at, he could have poked fun at the soldier in a different way. He could have arranged his sentence so as to conclude with the soldier's lack of common sense rather than his mistaking the triangulation marker for a boundary sign. Bache, an experienced writer, was used to coming up with narrative strategies. Of course, the story would have been much flatter. The issue here is not the soldier, but the absurdity of his supposition: By seceding, Southern states claimed that they were no longer part of the United States. They would therefore not call themselves "United States Confederate States" nor would they mark

their territory by including, on a boundary sign, both the name of their own “nation” and that of the country they had seceded from. The soldier completely misunderstood the marker, but the issue was not limited to ignorance or unfamiliarity with marking conventions.

The soldier’s particular mistake must have struck Bache as ironic for another reason: The difference between a cultural and political view of the nation is reflected in the different functions of the marker. While the soldier takes it to be a stone indicating a political boundary, it must have been, in Bache’s view, the exact opposite--a token of the national Coast Survey project. Through triangulation and the publication of exact maps, the organization was providing a cultural service--that of mapping the continent, with political and economic benefits, but nevertheless primarily a cultural service in the sense that it broadened the understanding of the natural environment in which the country was situating itself. As such, the organization led by Bache had been active within the larger framework of continental expansion and of the project of “settling” the continent. A Coast Survey marker, therefore, assumed the symbolic significance of indicating, on a basic level of mapping the natural environment, ambitious American expansionism. The size and dimension of the Coast Survey (when compared to other organizations funded by the federal government at the time and despite the political conflicts which it sometimes brought about) indicates that this was not just any project, but central to the country’s self-conception. Bache could consider himself to be among the leaders and developers of an American national culture. This perception was verified by his professional record and by the respect he could muster among colleagues.

Markers installed by the Coast Survey, therefore, stood for national cultural progress—the exact opposite of the kind of political regression represented by Southern secession. The name “United States Coast Survey” signaled that this was a service to the entire country, not just to the North. The decision to secede, in Bache’s view, must have been a distraction from the country’s true responsibilities including that of cultural development; hence he had nothing but condescension for the “so called Confederate States”. Bache not merely stood above factional conflict but represented the very idea of pushing forward the country’s cultural development which presupposed national unity. His career had been built on the assumption of a common, American purpose in developing science and the arts, and the fact that a few states tried to delay it did not lead him to reconsider the usefulness of his convictions.

It is against this background that the story’s irony comes into full view. The Coast Survey as a secessionist force! The Coast Survey involved in politics! Why else would Bache consider the story a match for Lieber’s? The superintendent and his organization stood above such mundane matters. They represented a broader national view of exploration and of a cultural development above and beyond politics. What must have frustrated Bache was that these political developments, though secondary and, in the long run, of little consequence in those areas which mattered most to him, now impeded the kind of progress and development of which he had been a protagonist.

It is a logical consequence of Bache’s perspective that the superintendent pokes fun, not so much at the South, but at the North. It is this soldier’s ignorance and his taking politics seriously which Bache makes fun of--the soldier’s incapacity to engage in more meaningful and relevant matters. This does not imply that Bache, a West Pointer, thought little of the military. It was the utter waste of national resources in a destructive activity

with little discernible benefit beyond the preservation of the nation's status quo, and the soldier's apparent ignorance of anything beyond this wasteful activity, that Bache saw represented by this story.

This reading, of course, will have to be corroborated by further exploration of the text. It will have to be double-checked against other segments of the same letter and I will turn to these below. But before we move on, let me point to a small but meaningful detail: Bache takes particular care in drawing the letters "U.S.C.S"—much like Lieber had repeatedly been drawing, in his letters, mottos such as "Blow upon Blow" and "Hard, Harder, Hardest." (These mottos had then evolved into a sketch of an arm, above it the letters "BuB" and under it "h.H.H."¹⁹) In a similar way, Bache's abbreviation represented a motto also, but it referred to the confederate and to the union states, in the soldier's perception, and to an overarching cultural organization, in his own. To Bache, "U.S.C.S." stood for a particular understanding of national American development and culture.

Bache denies the relevance of the confederate states and their right to existence when he refers to them as "so called." Bache did not only take a disparaging view of Southern secession but presupposed that while the term "Confederate States" may have been used in public, there was a different, moral reality above such political trivialities. This must be taken as further evidence for Bache's conception of the United States, not as a political but as a cultural entity--a nation founded on personal dedication instead of a habit of living together. Only if Bache viewed the United States as such a moral community does it make sense that he would tacitly regard it as a possible threat to take the South's political position more seriously. Such a perspective might be viewed as betraying a lack of trust in the future of the U.S.

This view lacked a quiet confidence in the future of the country. It was not clear whether the South could be reintegrated or whether the North would prosper in case the South managed to break away. Bache conceived of secession as a threat to the American project as such, and this implies that he was critical not only of the South, but of the country as a whole--of which the South, in his deep-seated unionist view, remained a part. Bache implicitly criticized those Northerners who accepted the reality of Southern secession as a political reality. He implied that these men lacked the strong moral conviction needed to preserve the country. I should note that these implications of Bache's letter, even if they were not conscious to him, remain relevant for our purpose of deciphering Bache's attitude toward the war, the nation, and the role of science.

Full of ire + unmindful of scriptural injunctions, + he took up the stone, + brought it as a trophy into the Union camp!

It is important here that Bache's own ire was directed at the Union soldier, not at secession as such. Not the secessionist South but the North as the remaining representative of the union was the target of his underlying criticism and implicit anger. Bache could have taken a different stand. He could have appreciated the soldier's intent. But it does not matter to Bache that the soldier was eagerly supporting the Northern cause. His anger was not even directed at its counterproductive results. He does not point

¹⁹ See, for example, Francis Lieber to Alexander Dallas Bache, May 12, 1862, box 31, Bache Papers, Rhees Collection, Huntington Library.

to the problems caused by the marker's removal as such. It is the soldier's ignorance he abhors.

An "injunction" is an explicit order (such as a court order). But what order, in the given case of "scriptural injunctions," could Bache have had in mind? Rules such as those prohibiting the removal of markers left from a Coast Survey triangulation? The soldier took it to be a marker left by the seceding Southern states but it seems unlikely that the phrase inferred either federal or confederate authorities. The soldier considered the marker to have been planted by the seceded states, and had the superintendent taken the perspective of the federal government, he would probably not have criticized the soldier's removal of a secessionist marker.

But Bache is not taking the perspective of a particular political entity. He was upset by the soldier's ignorance of authority in general and cultural authority in particular. Bache's perspective transcended a concrete political organization as he was frustrated with the soldier's neglect of authority represented by the Coast Survey. One could argue that the Coast Survey was a federal institution and that the marker represented that state's authority--so that Bache was ultimately annoyed by the soldier's disregard of U.S. institutions. But the focus here is different. The soldier angrily removed the marker because he thought it would be in the interest of the U.S. It is the implicit ignorance of cultural meanings and their authority in general which Bache detests. The superintendent was disgusted by the soldier's limited cultural horizon which nullifies any benefit derived from his eagerness to help win the war.

This reading goes hand in hand with Bache's reference to "*scriptural* injunctions" (my emphasis). He implicitly invokes for his organization an apolitical, semi-religious authority by bestowing on Coast Survey labels an authority similar to that of the bible. That Bache speaks of "trophy" further corroborates this interpretation: To consider the marker a trophy must in Bache's view be patently absurd for in his broad perspective he considered the organization to represent American culture at large, not a particular political component. To take the trophy back to camp so that other soldiers could help celebrate the symbolism of its removal is reminiscent of the Israelites dancing around the golden calf. Bache assumes the role of Moses returning from Mount Sinai, writing off the wrath developed at the site of the infidel.

We must infer that the war was a disaster for Bache because he could not understand how anyone in the South or North could be willing to waste time and resources in a conflict which was bound to put on hold the country's ambitious and competitive race in all areas of cultural investigation and development. At the same time, however, Bache's war engagement shows that he knew that the only way to get the country back on track was to help end the war, and the only way to do this was to help bring about an early union victory. The implication here is that Bache had a very strong and deep-rooted conviction of the country's developmental purpose and trajectory, a perspective which was far ahead of its time in the sense that it took for granted a unified and coherent body politic to carry it out. From this avant-garde position, Bache turned back reluctantly to help his countrymen follow the trail he was anticipating and had begun to blaze. The war was a deep disappointment of his cultural ambition and leadership. It brought into full view the absence of a cultural and political coherence and peace which Bache and his colleagues needed for their work.

It is important that these readings refer to implications of Bache's letter, not to explicit arguments. This implies that Bache was perhaps not even aware of these them. We are not looking at opinions but at convictions.

Perhaps under the direction of the Aruspex it may have been cut with razors into little trophies, as the Merrimac is split into splinters!

Of Etruscan origin, Aruspices (or Haruspix, pl. Haruspices) in the Roman Empire were "entrail observers ... whose art consisted primarily in deducing the will of the gods from the appearance presented by the entrails of the sacrificed animal." They also interpreted a range of natural phenomena. This class of diviners remained outside of established religion in Roman antiquity.²⁰ How does Bache come to make this connection? The singular in "the Aruspex" indicates that Bache referred to a particular individual. He is playing with words: The soldier was part of General Augur's advance, and Bache transposes the general's name (taken as a noun) into an ancient context, thereby adding a range of dimensions and associations. No other meaningful explanation of his reference to an Aruspex comes to mind here. Bache was taking a literary and playful view, engaging with Lieber in their friendly story-telling competition.

The gist of Bache's remark here, of course, is that of generalizing the soldier's ignorance. The Coast Survey marker could be carved up and become a trophy only if the soldier's attitude was widely shared among his comrades. By implicitly referring to the Etruscans and their role in ancient Rome, furthermore, Bache turns General Augur into a token of a fading traditionalistic culture taken over by enlightenment and progress. Against the reality of the Civil War and the union war effort, which he implicitly characterizes, Bache assumes an ambitious and self-assured view of the country. He looks at both the union army and the secessionists as tokens of a pagan culture akin to Etruscans in the Roman Empire. One could have argued that if even the union army relies on union soldiers mistaking the Coast Survey sign as a border marker, the prospects for American culture were bleak. But Bache upholds a different view of American culture--a view which allows him to assume this critical perspective. Bache's ability to successfully shape and support the union war effort indicates that he was not delusional. He could distinguish between fiction and reality quite well, for otherwise he would have not been able to successfully do what he did. In David Riesman's terminology, Bache was "inner-directed," and he was a visionary: Against the reality of the day he anticipated a sophisticated American culture that transcended political particularities. Bache was a charismatic leader of a universalistic American culture and confident in (and concerned about) its long-term trajectory and development.

There is further implicit evidence that Bache assumed such a broadly ambitious view in that he connects the Coast Survey marker with confederate engineering success. He embraces the intellectual achievements and distances himself from the common American citizen's spontaneous, uninhibited, and uncultivated response to war. The U.S.S. Merrimac (or Merrimack) was burned and left behind, at the beginning of the war, by the U.S. Navy in Norfolk Navy Yard, then raised and rebuilt as an ironclad ram by the confederate navy. The Merrimack caused significant damage in a sortie on March 8, 1862 and the next day fought the U.S.S. Monitor, an ironclad vessel recently introduced by the

²⁰ Encyclopedia Britannica, 2005, „Etruscan“, „The Etruscans“.

union navy, to a draw. The Merrimac's success (i.e. its ability to stand up to the Monitor) caused alarm in the North. Because the vessel was about to lose its naval base on the James River, it was then destroyed and abandoned by the confederate navy on May 11, two weeks prior to Bache's letter. We can see that even though the Merrimac was a confederate engineering success, Bache compared the vessel's fate to that of the Coast Survey marker. He imagines both being carved up and taken apart as trophies. Bache was concerned with research and engineering as part of a cultural development in the entire country and across political divisions. According to this perception, the war was an impediment and little more than an opportunity for regression. Bache cannot identify with strongly partisan pro-union feelings because his allegiance is with the U.S. which--quite naturally for him--includes the South.

Is it not rather heathenish to carry Aruspices with a x'n army?

Bache likens the role of the union army to that of the crusading Christian ("x'n") armies which brought destruction to the East while pursuing questionable religious goals. The union army's soldiers are eager to destroy the enemy, indignant at Southern secession, but their engagement results in death and devastation. To Bache, the irony of the situation is represented by the image of union soldiers carrying pieces of a marker by their very own U.S. Coast Survey. What is more, they assume these pieces to promise good luck and speedy victory because they are viewed as tokens of the enemy! To call such behavior "heathenish" and to contrast it with the Christian ideals of their cause implies that these soldiers have forgotten their own moral standards. In Bache's perception, the pieces are in truth part of these soldiers' own culture and its achievements--that of the United States of America and her Coast Survey. The union, in other words, in its eager efforts to subdue the South and to rally behind the flag, was in danger of abandoning its belief in developing a national and universalistic culture.

What is remarkable here is that Bache did not hold the South alone responsible for the way things were going, but the entire country. In assuming this perspective, Bache was not merely a spectator and much more than a civil servant. The superintendent personified an integrated and a unified national perspective far ahead of (and impatient with) contemporary political reality. Bache's natural self-confidence and self-reliant moral and cultural standards prompted him to take an integrated and ambitious national perspective.

Thanks for the patriotic song. I remember well how it affected me in the dark days! When treason spread over the land!

The poem referred to is Lieber's "A Song to Our Country and Her Flag" written in 1861 and later printed by his students.²¹ Bache acknowledges the song somewhat guardedly. He mentions that it affected him but leaves open what he thought of it. The "dark days," we must infer, are those of the previous year, when the South chose to secede. That Bache speaks of "treason" indicates that even though he intuitively took a view of the

²¹ See Lieber's letter to Bache, May 14, 1862, Bache Correspondence, Rhee's Collection [Notes, p. 60]. The song is available online at <http://hdl.loc.gov/loc.rbc/rbpe.12303400> [Library of Congress, October 30, 2006].

responsibility of the entire country (and not just of one region), this did not stop him to concur in contemporary views of Southern secession.

Bache moves on to a different topic, indicating a change of subjects by inserting a centered line:

What do you think of this. I have a letter from a [secess] lady appealing to me to save her property. Her husband is a double distilled traitor + her appeal is founded on the fact which doubly condemns him, that he was once in the employ of the Coast Survey! Heaven save the mark!!

B

u

B

h. H. H.

Yours A.D.B.

Given the woman's predicament, it was not a bad idea to contact Alexander Dallas Bache. Her property was about to be confiscated and she was looking for ways to save it.²² If she could convince him that she was worthy of help, superintendent Bache, her husband's former employee with excellent connections in the Federal government, could probably have done something about it. But Bache had no intention to comply with her request. He calls the appellant's husband a "traitor" for supporting the South; perhaps his former employee even occupied a position of leadership ("double distilled").

For our purposes, however, the decisive matter is that Bache then goes on to suggest that the husband was to be doubly condemned because he had formerly worked for the United States Coast Survey. Why would this "doubly condemn" him? Bache assumes that those who have worked for the Coast Survey have an even stronger obligation to uphold the country's integrity than those who have not. In his view, the Coast Survey was not merely a service agency for the federal government but an organization that represented and instilled in its staff a particular sense of national allegiance and civil responsibility. One could even say that the Coast Survey prefigured the United States as a nation-state because it was its model. It was the herald of a future, national perspective of the country, and this was why, in Bache's view, the former Coast Survey employee's behavior was particularly disappointing and treacherous.

Looking back on Bache's letter, we can now see that the superintendent presented two stories which both point in the same direction. Bache had started out by taking a condescending view of the Northern response to secession, and in the second part of his letter, he matched this with a story characterizing Southern villainy. The two stories are connected by the underlying assumption that the United States Coast Survey stood for the nation's integrated future. Hence it makes perfect sense that Bache summarizes and connects the two stories with the exclamation "Heaven save the mark!" The Coast Survey sign which the union soldier had mistaken for a confederate boundary mark symbolizes to Bache, not the progress of science or the particular success of his organization's work,

²² Probably with reference to "An Act to confiscate Property used for Insurrectionary Purposes" of August 6, 1861 (see U.S., *Statutes at Large, Treaties, and Proclamations of the United States of America*, vol. 12, Boston, 1863, p. 319, online at <http://www.history.umd.edu/Freedmen/conact1.htm> [October 31, 2006]).

but the United States of America as such. This concluding motto clearly supports our overall interpretation.

Because Bache was the leader of an organization which he took to be the advance embodiment of the nation, furthermore, we now have additional and very strong evidence that he intuitively considered himself to be among the nation's cultural leaders--if not *the* cultural leader. This was not an explicit claim or assertion but an unconscious subjective standard and reality. Within the logic of this personal mythology which structured his perception of everyday life, Bache did live up to the ambitions of his ancestor Benjamin Franklin. Metaphorically, one could speak of Bache as a "Moses of American culture."

By adding "B u B" and "h. H. H." at the end of his letter, Bache subscribes to Lieber's mottoes "Blow upon Blow" and "hard, harder, the hardest." Bache had not used Lieber's symbols in his previous letters.²³ It seems as though writing about the ignorant soldier and his former employee's pleading wife had loosened him up for a more adolescent (and somewhat regressive) posture. That these two stories would have this effect highlights the relevance of their implications. On the surface, the mottoes refer to the war and to the military, but their erotic connotations cannot be overlooked. In his correspondence with Lieber, Bache perceived an opportunity for opening up in a way he could not with his professional peers. Here he had the room to more directly voice his convictions about national culture and development--the backdrop and setting for the development of science in America. While his colleagues were not ignorant of politics, of course, we must assume, on the basis of this letter, that Bache appreciated the opportunity to converse with someone who shared the totality of his perspective, the national dimension of things, and romantic ideals of driving culture forward. Apparently, he felt as though Lieber, perhaps better than others in his circle, could grasp the perfidy his soldier-story represented and the broad cultural and historical perspective which prompted Bache to react to it so strongly.²⁴

Bache ended his letter to Lieber with the following postscript:

I do not think that Genl. T. has any poetry but if you choose I will try him "with the author's compliments." That may touch.

He has not noticed my note in behalf of Hamilton. The least a big man can do for a little one is to answer.

Hamilton Lieber was fighting in an Illinois regiment and his father had apparently asked Bache to convey a book, perhaps to the commanding general. It is only in his postscript that Bache turns to such practical matters. As we have seen, he had reserved the main body of his letter for his two stories. This priority to an aesthetic and impractical mode is reflected in his concluding comment. The general is "big" and powerful, and he fails to live up to his own and Lieber's standards of refinement. Bache assumes an attitude of aristocratic sophistication--the antithesis to the general's worldly relevance. By referring to himself as "little," Bache implies that science and the arts (the "poetry" represented by him and Lieber) cannot be measured in terms of usefulness. Though they are superior intellectually, they are also at a practical disadvantage. This is a crucial point, for it puts

²³ I.e.--those that have survived.

²⁴ For the case of Lieber and his work, see Merle Curti, "Francis Lieber and Nationalism," in: *Huntington Library Quarterly*, 4:1/4 (1940/41), p. 263-92.

the foregoing into perspective. The paradox may be stated thus: Bache was perfectly aware that science and the arts remained without immediate political influence or consequence. Lieber's and his was an "unpractical" business which, despite Bache's efforts such as his work on the Blockade Board or the Coast Survey, was of little relevance when compared to that of the military. And yet Bache, the scientist and science administrator, considered himself to be the visionary of a coherent American culture--a visionary so captivated by the idea that (at least in his correspondence with Francis Lieber) he could hardly hold back his disdain for those who were destroying it. It is this perspective which made him both an organizational realist and a cultural romantic. [...]