Figure 11-1. The City of Madison, located on a map of Wisconsin depicting the Mississippi, Wisconsin, and Fox waterways.
CHAPTER 11:
THE PLAN OF MADISON

In early 1836 James Duane Doty was in the city of Detroit where he met with the new Governor of the Michigan Territory: Steven Mason. Like most men of means in the territory of 1836, Mason was willing to invest funds in land speculation and townsite development. Doty, having been involved in numerous townsite developments in Wisconsin, was more than prepared to give advice on the subject to a potential investor. Before Doty left Detroit, he had written to the land office in Green Bay with instructions to register the purchase of a narrow isthmus of land between the third and fourth lakes, in the Four Lakes Region. Mason and Doty purchased the site in equal shares of what was to become The Four Lakes Company. The Company, eventually including another investor (Francis Tillou), conveyed to Doty the authority to act as trustee and agent in order to divide, layout, promote and sell property in the new town.¹ This arrangement gave Doty virtually complete control over the disposition of the land, allowing him to act independently without seeking the approval of the investors. Doty’s absolute authority was well deserved in this venture, for few in the territory were as knowledgeable with regard to the selection, development and politics of townsites. In the year 1836, Doty’s expertise would have been considered especially valuable. It was in that year that the legislature was to convene in order to determine which city would become the seat of government, certainly the most coveted prize in territorial townsite speculation. And so when Doty began work on the isthmus townsite, it was certainly with this prize in mind that he labored: to make Madison the greatest settlement of the territory, the capital of Wisconsin.
Figure 11-2. Wilderness landscape near Madison. Sketch by Adolf Hoeffler, State Historical Society of Wisconsin.
An absolute attribution of "designer" is almost always problematic, especially with regard to early city plans. In the case of Madison, however, we have a first person account that clearly labels Doty as the originator of the plan. In late 1836 Doty hired John Suydam to act as surveyor for the initial measurements at Madison, and around 1870 Suydam wrote down his reminiscences of their voyage and work together:

"On the second day of November of the year in which the session of the Legislature was held in Belmont, Gov. Doty and myself started from Green Bay on horseback, he with his green blanket and shot-gun, that had been his companions on many a trip through the almost trackless wilds of Wisconsin, and I with my compass and chain. We were both provided for camping out wherever night should overtake us; and for the more solid part of our forage, we were to depend upon the Governor's gun...

...Finally, after about eight days from the time of leaving home, we reached what was then called "Four Lakes." We came by the trail that led around by the north side and west end of Fourth Lake, and found near what might be called the north-west corner, and perhaps two miles from where the university buildings now stand, a small log house, occupied by a man whose name I have forgotten, who entertained our horses and ourselves nights, and assisted us day times in making the plat of the future city. This took us, I think, three days..."
Figure 11-3. Plat of Madison, Wisconsin: 1836. State Historical Society of Wisconsin.
"...We went directly to Belmont, where the legislature was in session. On arriving there, I immediately set about drawing the plat of Madison, the Governor, in the mean time, giving me minute directions as to its whole plan, every item of which having originated with him while on the ground, as being the most suitable, and best calculated, to develop the peculiar topography of the place..."

The drawing that Suydam describes survives to the present and is reproduced on the opposite page. With plan in hand, Doty forcefully lobbied to convince legislators that Madison should be chosen as the capital site. Doty was a convincing man and had developed techniques of persuasion specifically for the occasion. As several persons who were present at the session later attested, Doty evidently deeded corner lots to a number of legislators, presumably in return for their favor. After heated debate and unsuccessful ballots on over twenty proposed locations (five of which were towns Doty designed) Madison was selected as the territorial capital. While Doty's alleged lot bribery must have been an inducement, one can assume without much fear of contradiction that several of the numerous promoters present were doing likewise. In fact, Doty's selection of location and the design of the city itself, can be seen to have been the primary motivators in the selection of capital. The location of Madison, centered in between Lake Michigan and the Mississippi, was politically acceptable since extreme eastern and western cities could not win broad support.
Figure 11-4. L'Enfant's plan of Washington, D.C. as revised by Ellicott: 1792.
Perhaps of greater significance than its "neutral" position in the territory, Madison possessed a unique and striking plan which served to cast its competitors in a poor light. While all of the competing towns utilized a uniform gridiron plan, Doty had overlaid the grid with a system of baroque radial avenues that converged on a vast central square. This radial planning made Doty's plan unique, appearing in stark contrast with the gridiron plans of such towns as Milwaukee. It is not only this contrast that worked in Doty's favor, but also the similarity between the radial planning of Madison and the design of the federal capital in Washington. What forms would be more suitable, he could have argued, than those chosen to represent the seat of government for the nation? Doty was familiar with the plan of Washington having visited the city as recently as the previous year. For the plan of Washington, Pierre L'Enfant had superimposed two distinct systems, one on top of the other. A gridiron of rectangular city blocks formed the basis of the Washington plan, over which was laid a pattern of diagonal avenues which served to connect the major monuments and open spaces of the city.
Figure 11-5. Partial plan of Woodward's scheme for Detroit, Michigan: 1807.
The regular grid of streets and blocks of the capital city had been proposed by the sensible Thomas Jefferson, who was experienced as a surveyor in the layout of grids on the American frontier. L'Enfant, while accepting the grid as his basic block structure, wished to take advantage of local topography in order to give the scheme character and uniqueness. One example of this strategy was to locate important civic monuments on the tops of existing hills, in this way allowing the natural terrain to determine the location of the cities primary features. Suydam's comment that Doty had "...calculated to develop the peculiar topography of the place..." in his planning of Madison, demonstrates that Doty had very similar concerns. Doty was also in possession of even more direct experience with radial planning, as he had lived in Detroit and had personally known its designer: Judge Augustus Woodward. But while Doty's plan for Madison and Woodward's Detroit share many of the same concepts, the geometries which organize the two schemes are quite different. Woodward's plan was based on a triangular module, which was to be repeated as the city grew in size. This rather complicated system of land subdivision proved too difficult in application, and it was eventually rejected by the simple and practical men of the frontier. Doty, who had witnessed Woodward's "failure," would have been reluctant to follow in his footsteps in the design of Madison. He chose instead the much simpler gridiron of Jefferson as the basic module, contrasting this grid with a few unique and carefully placed public spaces. Unlike Woodward's Detroit, the majority of street intersections and lots in Doty's plan are rectangular and have survived until the present day.
Figure 11-6. Detail of the square (top), and a detail of the entrance trident (bottom) from the 1836 plan. State Historical Society of Wisconsin.
The plan of Madison is a unique and ambitious scheme, a plan in which Doty's earlier experiments in the design of cities comes to maturity. The scheme focuses on a vast (914 X 914 feet) central square, which is reserved for the capitol building. Radiating from this central space are four diagonal streets and four major avenues. The diagonal streets are located along township survey section lines, for Doty must have noticed that these section lines crossed near the top of the highest hill on the isthmus. This hilltop supplied Doty with the location for the central square, the section lines became the axes of the radiating diagonal streets. These features were then overlaid with a gridiron of rectangular streets and blocks. This grid was oriented roughly parallel with the linear shape of the isthmus, thereby easing the collisions of grid and lakeshore. This methodology of respecting existing features is of course similar to that expressed by L'Enfant, and it is likely that Doty was thinking in terms of things he had seen and admired in Washington. Doty planned two additional diagonal streets and these too followed the positions of township section lines. Unconnected to the central square, these two un-built diagonal avenues would have formed a powerful entry sequence into the city for those approaching Madison from the east, offering a trident of vistas to both lakes and to the central square beyond. The form of this trident entrance is quite similar to the Piazza del Popolo entrance to Rome, where the road from Florence enters the city and visitors are greeted with such a trident of vistas. While Doty never visited Rome, he is known to have collected several guides that described the experiences of European cities.
Figure 11-7. Detail of the canal from the 1836 plan. State Historical Society of Wisconsin.
Connecting the two lakes Doty has shown a canal which divides the town into two parts. Doty was a product of the canal era and all but a few of his designs had featured them. Doty had optimistically hoped to connect Madison with the territories water transportation network, a scheme which never transpired. This canal was also to serve as a mill race providing power for saw and grinding mills. This mill race takes advantage of the natural difference in elevation of the two lakes, and a square is reserved at its southern end for the construction of mills. This "mill square" opens to the lake, and the city seems to embrace the water at this point. Doty makes several other deviations from the standard gridiron, generally to adapt the scheme to the irregular shapes of the lake edges. The grid has been slightly altered in the area about the central square, where the city blocks are halved in their size. This subdivision produces a greater number of street corner lots in an area that was certain to be among the most desirable for commercial enterprises.
Figure 11-8. Plan of the Western Addition to Madison, Wisconsin: ca. 1836. State Historical Society of Wisconsin.
In the weeks after Doty's design for Madison was selected as the territorial capital a wild surge of lot sales in the paper town occurred. Hundreds of lots were sold within weeks of the Belmont decision, some individually, some in parcels of a hundred of more. With this boom in lot sales as encouragement, Doty and several investors laid out a western addition to Madison within two months of the decision at Belmont. A drawing of this addition is reproduced on the opposite page. This freehand sketch is representative of the kind of plan that Doty would have handed over to a surveyor in order that a more finished and carefully drafted version could be drawn. The plan, which features an irregular or stepped eastern edge, could not be smoothly grafted onto the earlier plan of Madison as property immediately west of the original city was already in the hands of other developers. Doty's design for the first addition to Madison features none of the radiating avenues of the original city, but was instead developed in the form of a gridiron divided by a wide avenue. The two resulting "districts", one on either side of the broad "Washington Avenue", each receive two large public squares. These squares, while considerably smaller than the vast "Capitol Square" of the Madison plan, are still quite large, with greens that would have been just over 450 X 700 feet in size.
Figure 11-9. Detail of a square from the Western Addition (top), and a square from the plan of Savannah, Georgia (bottom).
The manner in which these squares are designed is very similar to the configuration of the squares at Savannah, Georgia, although the Savannah squares are somewhat smaller. In this context one is reminded of Doty's plan of Fond du Lac and the overall similarity that it has with the Savannah plan of repetitive squares internal to a ward or neighborhood. These similarities suggest that Doty was familiar with the Savannah plan, and was willing to experiment with its elements. Two of the squares in Doty's plan of the Western Addition are labeled "Doty Square" and "Seminary Square." "Seminary Square" holds particular interest in that it is only half complete in this layout. The property required to complete the square was owned by a friend of Doty's, Aaron Vanderpool, who had hired Doty as an agent in land speculation. Doty intended to donate the property (his and Vanderpool's) of "Seminary Square" to the territory, in the hope of establishing a University of the Territory of Wisconsin there. Doty was most likely thinking of his old mentor Woodward here, in that Woodward had been instrumental in the founding of the University of the Territory of Michigan. While Doty was unsuccessful in his attempt, his efforts established the idea that the University should be established on or near the location of "Seminary Square." From that time onward, early Madison residents took to calling this area "College Hill," which eventually led the first university regents to purchase this spot from Vanderpool in 1848. Doty must be credited then, with the general location of the State University. It is also possible that in Doty is the genesis of the green square or park concept used in the siting of the early campus buildings, which were planned in 1850 to sit as classical objects in an open parklike setting.
Figure 11-10. Reconstruction of how the Western Addition adjoined the earlier plan of Madison, Wisconsin.
The plan shown on the opposite page attempts to reconstruct Doty's idea of how the Western Addition to Madison would have been grafted onto the original plan. The gridiron of the addition is parallel and perpendicular to the diagonal of King street, which has been extended directly into the plan of the addition. Washington street, the primary street of the earlier plan, has also been extended into the new scheme, although its orientation has been shifted 45 degrees to align with the new grid of the addition. Suydam's original plan of Madison shows this realignment of Washington in the margin to the left of the plan. This was probably added by Doty during the development of the design for the western addition scheme. In addition to the realignment of Washington, Doty has done the same to ten other streets, all shifted to the new grid and then extended into the new plan. This shifting or reflection to a new grid has made the dimension of the new city blocks narrower, explaining why most of the lots in Doty's addition are a full block deep. Doty evidently felt that a subdivision of such blocks would have resulted in lots too small in size. One most interesting result of these "through lots", is that it turns every other street into an alley or lane. Buildings would have fronted on Washington, for example, making the next street north into an alley. Doty has, in fact, drawn the streets and alleys in slightly different widths, even on this freehand plan. The streets are shown as more generous in size than the alleys or lanes. The alternating pattern of street and alley works out such that the central axis of the squares align with the wider streets and not the lanes.
Figure 11-11. Early photograph of the First Capitol erected in Madison, Wisconsin.
Although lot sales in the newly declared capitol had initially been furious, a major economic crash of 1837 deadened development activity. While progress continued in Madison, it soon became apparent that the Western Addition was overly ambitious and it was abandoned. Even for the new capitol things moved slowly. Certainly many lots had been sold, but few owners moved to develop them. Two years after the Belmont decision, the Territorial Legislators converged on the new town to find only about thirty buildings clustered about the square and Kings Street. While most of the structures were crude log affairs, several frame buildings had gone up. Most impressive was the fact that construction on the sandstone clad capitol building had progressed quickly, allowing the legislators to partially occupy the building in the winter of 1838-39. While work on the interiors continued until 1844, the capitol building was substantially completed by 1839. Built in a doric neoclassical manner, the local sandstone building featured a metal clad dome that had an effect of "glancing like silver in the sun's rays." This dome was often referred to as "Doty's Dome," suggesting that he had some involvement in architectural planning. Doty had, of course, designed the site for the capitol which had a strong effect on the buildings appearance. The rather modest building was positioned in the center of the vast capitol square, surrounded by the natural vegetation that had been wilderness only two years previous. The effect of this siting was very similar to Jefferson's "classical villa in a romantic park" ideal which Doty had seen executed in Detroit. In addition to its role as the physical center of the city and the political center of the territory, the structure served as a social center as well; serving as dance hall, theatre, church, meeting hall and funeral parlor. In a very real way the existence of this structure allowed the city to be "complete," even though only thirty or so other crude structures existed at the time.
Figure 11-12. Plan of Madison, Wisconsin: 1855. American Geographic Society Collection.
The 1855 plan of Madison, reproduced at left, shows that by that date several alterations to Doty's original plan had already been made. Doty's western addition has been abandoned, although several of his concepts for the area have been executed. The grid of this part of the city has been turned 45 degrees to parallel King Street, now called State Street. The area in which Doty had located "Seminary Square" has indeed become the parklike grounds of the Territorial University. Madison's two great civic institutions now face each other from either end of State Street, with both capitol and university buildings set in large, romantic park settings. The folded-down pictorial views of the capitol and the university as drawn on the 1855 plan, is aptly descriptive of their importance in the city; not another building is shown on the drawing. The plan also reveals that the central area of Doty's design has survived intact, essentially as drawn on the 1836 plat. To the east, however, changes can be seen. The canal planned by Doty has not been built, and due to a large hill that would have required a great deal of earth removal the scheme has been abandoned and the area replatted. Seven new city blocks have been inserted between East and West Canal Streets, shutting off what would have been a unique public open space connecting the two lakes. Equally disappointing is the loss of the open space reservations at the two canal mouths. Both spaces have been replatted as private lakeshore lots. Unfortunately, these private lots now terminate two of the diagonal streets from the capitol rather than providing vistas of the lakes as had originally been planned. Further investigation reveals that two of Doty's original diagonals, those that were part of the entrance trident, have been omitted entirely. While these changes were all compromising losses, they are essentially the last major alterations made to Doty's plan, and the scheme as altered in the 1855 plan at left, has survived substantially intact until the present.
Figure 11-13. Plan of Madison, Wisconsin: 1890. American Geographic Society Collection.
While the square, streets, and avenues of the original plan survived basically intact, Doty's generous lot subdivisions have not. The lot size chosen by Doty in his 1836 plat of the city was 66 X 132 feet, large even by contemporary standards. Doty's choice of such a large lot size (a feature seen in most of his designs) was probably influenced by Woodward's Detroit plan. Woodward had also used large lots of 60 feet in street frontage. The Jeffersonian ideal of the free-standing villa surrounded by parklike open space comes to mind in this regard. This large lot size served the early development of the city. Later in the nineteenth century, however, lots on the isthmus around the capitol were built out, while property values and demand for space continued to rise. The result of this demand was that many lots in the central area of the plan were subdivided, re-platted and sold. A common subdivision was the half-lot, 33 X 132 in size. The generous side yards of single family homes were sometimes used for the construction of two flat or even three flat structures. This had an effect of drastically increasing the density implied in Doty's original plan. A plan of Madison as it appeared in the year 1890 demonstrates this phenomenon. This plan depicts accurate building footprints and gives an idea of the extent to which re-plats have occurred, if compared to Doty's 1836 plan. Block 52 in the 1836 plan featured 18 lots while the same block has been subdivided into 27 lots by 1890. It can be observed that these subdivisions and re-plats are most common within five blocks of the capitol square, as these lands had the highest value. It will be remembered that Doty had reduced the block size in this central area, in part to account for increased value around the square. In doing so he had also reduced the size of numerous lots around the capitol grounds. While Doty seems to have anticipated the effect on value that the square would have on surrounding property, he did not foresee the extent to which this would occur.
Drawing by John Wengler, State 
Historical Society of 
Wisconsin.
Despite the changes seen to James Duane Doty's 1836 design, the plan remains substantially intact today. Three different Wisconsin capitols have been built in the square on the hill and yet the original planning ideals remain much in evidence. The charm and character that can be seen in the early view opposite have largely been retained today, even though the majority of buildings seen in the view no longer exist. This character derives largely from the natural beauty of the isthmus and the plan which was so intelligently placed upon it.