MARIANNE STOCKEBRAND

The Making of Two Works: Donald Judd’s Installations at the Chinati Foundation

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In the late 1970s, when Donald Judd started work on his most ambitious project, which he later named the Chinati Foundation, he was not only rethinking the concept of the museum as such, he was also embarking on his two most ambitious works of art, which were to be the culmination of his artistic career. The Chinati Foundation project was begun by Judd in 1978–79 in Marfa, Texas, where he had lived for the past five years and where he had already turned two former aircraft hangars and the land around them into his own private residence. This property is a complete microcosm in its own right, which—like a monastery—has all of life’s essentials, from an excellent library to a chicken coop. Unusually, however, it also has an outstanding art collection—predominantly works by Judd himself—generously laid out and interspersed in among everyday objects such as dining table, bed, armchair, music system. Judd was exploring the connection between art and life: art became the heart of the household and each piece was placed with as much care as he would expect from a museum display. The fact is that the Mansana de Chinati—to give it its Hispanic name—is a mansion aspiring to the status of a museum. Judd was well aware of this, and made all the relevant decisions with an eye to the future. While he was still alive, his creation functioned as a private home; now it works as a domestic museum, where the public can view an impressive collection of early pieces by him. Much—although not all—of the Mansana was already finished when the possibility arose, through

MARIANNE STOCKEBRAND

La creación de dos obras: las instalaciones de Donald Judd en la Fundación Chinati

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A finales de los años 70, cuando Donald Judd comenzaba a trabajar en su proyecto más ambicioso, al cual nombraría más tarde la Fundación Chinati, no sólo estaba reconsiderando el concepto del museo como tal, sino que al mismo tiempo estaba dando inicio a sus dos obras de arte más importantes, las cuales constituirían la culminación de su carrera artística. Judd empezó su proyecto de la Fundación Chinati en 1978/79 en Marfa, Texas, donde había vivido durante los últimos cinco años y donde había convertido ya dos construcciones que antiguamente se usaban como hangares, junto con el terreno que los rodea, en su residencia propia. Esta propiedad es un microcosmos en sí y, como un monasterio, cuenta con todos las necesidades básicas de la vida, desde una excelente biblioteca hasta un gallinero. Sin embargo, también tiene una sobresaliente colección de arte integrada principalmente por numerosos obras de Judd mismo, colocadas y exhibidas entre objetos de uso diario, tales como la mesa del comedor, la cama, un sillón y el sistema de sonido. Judd estaba explorando la conexión entre el arte y la vida: el arte se convertiría en el núcleo del hogar y cada obra se colocaba con el mismo cuidado que el artista hubiera esperado de una exhibición en un museo. De hecho, la Mansana de Chinati es una mansión que aspira a ser elevada al nivel de museo. Judd estaba bien consciente de esto, y tomó todas las decisiones correspondientes con miras al futuro. En vida del artista, su creación funcionaba como una casa particular; ahora funciona con la misma eficiencia como un museo doméstico, en donde los visitantes pueden observar una impresionante colección de las primeras obras de Judd.
the Dia Art Foundation, of creating a new kind of museum in Marfa, a museum which would be able to accommodate large-scale works made specifically for it. This was the answer to Judd’s long-cherished dream of creating something that exceeded the potential of conventional exhibition practices and demanded more of the artist than a single work. Judd had been waiting for just such a challenge and the Dia Art Foundation was prepared to provide the finances needed to realize something truly great. Both Dia and Judd shared ideals that were rooted in the Renaissance, ideals that they were not afraid to measure themselves against, be it on a philanthropic or an artistic level.

For Judd it was important that his art should relate to the architecture of the museum so that each—art and architecture—would both hold its own and underpin the other. He had so often been dissatisfied with the exhibition spaces in art museums, regarding them as largely unsuited to showing contemporary art. However, his aim in Marfa was more than simply to create suitable spaces—his ultimate aim was to unite art, architecture, and nature in an embodiment of his own philosophical outlook, which sought to avoid fragmentation and to promote coherence. These had been the parameters for the Chinati project as a whole, which was to include installations by Dan Flavin and John Chamberlain as well as work by Judd himself. It’s important to remember that the aim was not to create a single-artist museum, but that the intention was that works by different artists should enter into dialogue with each other. Initially Judd wanted to restrict the work to these three artists alone, since he felt that it already had enough to create the right conditions for installations by even just three artists and to take care of their work appropriately in the long term. However, he was always interested in including work by additional artists in the collection, and did so later on. After the break with the Dia Art Foundation in 1987, the collection was expanded to include work by Claes Oldenburg and Coosje van Bruggen, Ilya Kabakov, Carl Andre, Ingólfur Arnarson, Roni Horn, Richard Long, and John Wesley.

In this text, however, I will concentrate entirely on the work of Donald Judd, specifically the two ensembles that he conceived for the Chinati Foundation. The first of these is the series of 15 multi-part works, made from concrete and placed outside in an open field (ill. 3); the second is the group of 100 aluminum boxes which now occupy two large spaces, formerly gunsheds (ill. 17, p. 55). The sheer size of these ensembles means that each was a huge undertaking in terms of its conception, realization, and financial backing, and each took between del proyecto Chinati, el cual debía incluir instalaciones de Dan Flavin y John Chamberlain junto con las obras del propio Judd. Es importante recordar que la intención no era crear un museo dedicado a la obra de una sola persona, sino que hubiera un diálogo entre las obras de diversos artistas. Inicialmente Judd quería restringir el trabajo a estos tres creadores, pues creía que ya era bastante difícil reunir las condiciones adecuadas para la instalación de obras de siete artistas y darles el mantenimiento adecuado a largo plazo. De cualquier modo, siempre estaba interesado en agregar obras de otros artistas, y más adelante lo consiguió. Después de la ruptura con la Fundación de Arte Día en 1987, la colección se amplió para incluir el trabajo realizado por Claes Oldenburg y Coosje Van Bruggen, Ilya Kabakov, Carl Andre, Ingólfur Arnarson, Roni Horn, Richard Long y John Wesley.

Hoy, sin embargo, me gustaría enfocarme exclusivamente en las obras de Donald Judd, específicamente en los dos ensambles que concibió para la Fundación Chinati. El primero de ellos es una serie de quince obras multipartitas, hechas de concreto y colocadas al aire libre (fig. 3); el segundo es un grupo de cien cajas de aluminio que ahora ocupan dos grandes espacios, donde anteriormente se almacenaban armas (fig. 17, p. 55). El simple tamaño de estos conjuntos significa que cada uno representaba un enorme esfuerzo en cuanto a su concepción, realización y financiamiento, y cada uno tardó entre...
four and six years to complete. Judd had never made anything even remotely as large and these projects posed unusual challenges in terms of their design and production. Although they are similar in size—one group consists of 60 units, the other has 100 units, and took much the same length of time to produce, having been started at the same time—they underwent very different production processes, which I will presently describe. They cast an interesting light on Judd’s working methods in circumstances that were a mixture of challenging and not far short of ideal.

The design for the 15 concrete pieces evolved in stages. Judd put his ideas down on paper many drawings, with the result that we are now in the position to follow his thinking step by step and to understand the relevant chronology since all but a few of the drawings are dated. When the first contract was agreed with the Dia Art Foundation in spring 1979, there was still talk of “certain large-scale outdoor sculptures,” whose “nature and materials were yet to be determined by the artist.” Adobe and concrete were aired as possibilities. In addition, the agreement also states that the location for these works was yet to be identified and that it was assumed that one work would be realized per year, with the contract to run for five years. Clearly much was still to be decided.

Judd’s first handwritten note regarding this project is dated August 1980 (ill. 1), in other words, roughly one year after the contract had first been agreed to. However, in the meantime Judd had identified the lo-

La primera nota escrita a mano por Judd en relación con este proyecto está fechada agosto de 1980 (fig. 1), es decir, apenas un año después de que el contrato fuera acordado por primera vez. Sin embargo, mientras tanto Judd había escogido el sitio donde se instalarían los obras. Lo describe en esta nota como “a 100 pies de la intersección de la calle Northsouth con la North”, una alusión a un camino de tierra que corre a lo largo de la orilla de la propiedad Chinati. El sitio seleccionado corre paralelo a este camino, y era la única zona plana en este terreno ligeramente inclinado. La nota menciona que las esculturas serían acomodadas a todo lo largo de una línea recta de norte a sur, y todas las piezas quedarían centradas con exactitud en este eje y equidistantes unos de otros. En caso de las piezas triangulares, uno de sus lados debía coincidir precisamente con el eje este-oeste. Una nota adicional (fig. 2) da la longitud del lugar como 3,210 pies o 978 metros, de los cuales 197 pies (60 metros) están ocupados por un terreno, con lo que se disponía de 3,094 pies o 942 metros útiles. Esta cifra, dividida por quince-es claro que se había tomado la decisión de que éste sería el número de piezas-arroja una distancia de 63 me-
allows a distance of 63 meters between the works, which Judd rounded down to 60. So it had now been decided that there should be a distance of 60 meters from the center of one to the center of the next of the 15 concrete works, regardless of their individual dimensions or the number of parts they consisted of; furthermore it had been decided that they should be placed north-south and east-west where necessary. Having determined these coordinates, Judd now had an underlying order which allowed him considerable freedom in the design of the individual pieces.

On the first sheet of sketches and notes, made in August 1980, there are already several indications of triangular structures. Three rectangular volumes form a triangle; the tips of the triangle—which make up the basic shape—extend beyond the rectangles. The question of the distances between the elements has not been fixed yet—either 2.5 or 2 meters—but it already seems to have been decided that the rectangles are positioned outside the triangle, with one long edge lying along the side of the triangle. Halfway down the note, on one side, there are two small rectangles side by side, with the words “first” and “then” followed by a triangle. This line has been crossed out and replaced with a note that the first element should be a triangle. The third sheet (ill. 4) shows the same two configurations again, although with the two-part figure on the left and the triangle on the right, as they were later realized. The distances between the elements are noted as 1.25 and 2.5 meters, as in the finished work. The distance from center to center is marked here as 200 feet or 70 meters, but there is also a number “60” under the 70, even if it is upside-down. The elements themselves are marked as 5 meters long and 2.5 meters deep. These measurements seem to have been decided very early on, for there is only one isolated drawing with different measurements, and this is clearly not relevant to Judd’s thinking as a whole. It is interesting that Judd chose to work here with the metric system—even though he measured his concurrent aluminum pieces in inches. The late 1970s and early 80s was a transitional phase for the artist; although he was using both systems of measurement at this time, he was veering toward the metric system, which is broadly speaking a simpler system that makes it easier to calculate relationships. With just a few exceptions—such as the so-called stacks and progressions, which are based on measurements established in the 1960s—from the early 1980s onwards Judd calculated his works, particularly any new pieces, in meters and centimeters. The concrete works at the Chinati Foundation are the first pieces of this size to be conceived using the metric system.

The first two works were made in fall 1980 (ill. 5). The 25-centimeter-thick concrete slabs were poured and set up in situ. But Judd was not satisfied. The execution of the pieces was not accurate and by no means lived up to his expectations. His main criticisms were:

“corner not square”;
“corner of top longer than side”;
“seam rough”;
“crack at top large and uneven.”

Summing up his findings, he commented: “The biggest concern is the uneven length of the slabs and the corners not being square. Second is the chips and scuffs caused by careless handling. Third is the large cracks. 1 and 2 can be solved by greater care, as can 3, by stronger forms.”

Immediately following the making of the first two works, Judd turned his attention to the next pieces. The triangle as a basic form retains its interest for him, even if he does also try out a square formation in passing and with experimental linear or right-angled structures—using "L" and "T" shapes. These drawings provide little information concerning elements están indicados como 1.25 y 2.5 metros, como quedaron en la obra terminada. La distancia de centro a centro está marcada aquí como 200 pies o 70 metros, pero también hay un número “60” invertido debajo del 70. Los elementos por sí mismos están marcados con 5 metros de longitud y 2.5 metros de profundidad. Parece que estas medidas habían sido seleccionadas desde mucho antes, ya que hay solamente un dibujo cíclido con medidas diferentes, y claramente no entra en el plan global de Judd. Es interesante que Judd haya optado por trabajar con el sistema métrico, aunque midió sus piezas de aluminio en pulgadas. El final de la década de los 70 y principio de los 80 marca un período transicional para el artista: aunque estaba utilizando ambos sistemas de medición, se estaba inclinando más por el sistema métrico, que es, en general, un sistema más sencillo que facilita el cálculo de las relaciones. Con pocas excepciones—tales como los llamados montones y progresiones, los cuales se basaban en medidas establecidas en la década de los 60—, a partir de 1980 Judd hacia sus cálculos, particularmente en el caso de las obras nuevas, en metros y centímetros. Los trabajos de concreto en la Fundación Chinati son las primeras piezas de este tamaño que se concibieron utilizando el sistema métrico. Estas dos primeras obras fueron hechas en el inverano de 1980 (fig. 5). Las planchas de concreto, de 25 centímetros de grueso, fueron vertidas y preparadas en el lugar. Pero Judd no estaba satisfecho. La realización de las piezas no fue exacta y no le dejó nada satisfecho. Sus quejas principales las expresó así:

‘esquina no cuadrada’;
‘esquina superior más larga que el lado’;
‘junta desigual’;
‘grieta grande e irregular en la parte superior’

Resumiendo sus impresiones, comenta: “El principal problema es la longitud irregular de las planchas, y las esquinas no están cuadradas. El segundo son los raspones y marcas ocasionadas por un manejo descuidado. El tercero son las grandes grietas. El 1 y el 2 pueden ser solucionados con un mayor cuidado, y el 3 mediante el uso de moldes más resistentes”.

Inmediatamente después de realizar las dos primeras obras, Judd fijó su atención en los siguientes pies. El triángulo como forma básica sigue siendo su preferencia, aunque experimenta de paso una formación en forma de cuadrada y con estructuras lineales y con un ángulo recto, usando formas de “L” y “T”. Estos dibujos proporcionan
the openings on the individual volumes and how space is to be organized among them; in general the thick lines indicate walls while the thin ones indicate openings. Sometimes it is barely possible to distinguish one from the other. Therefore, it seems to me that at this stage, Judd's main interest was in the configurations, which would then determine where individual elements should be placed. There are just a few indications that other types of individual elements also entered the frame; for instance, in one drawing a rectangle is open on two sides—one short side and half of one long side—and to the left of this, where the two such rectangles are combined, connecting at one corner and no longer clearly distinguishable as individual elements. There are also experiments with right angles, using simple and double L-shapes, which finally interlock to create a continuous square. There are more square arrangements, but Judd later came to the conclusion that he couldn't make squares. In March 1981, Judd made the breakthrough to the next group of works. He produced four sketches of the acute-angled triangles (ill. 6): the rectangular volumes that form the sides of the triangles now all have one end open and the other closed (left), or they are open on both sides (top), or open only to the center of the triangle (middle), or closed to the center and open to the outside (bottom). In another drawing Judd turned his attention to the progress of one configuration to the next (ill. 7), and came to the conclusion that a second triangle should be added to the two existing works on the far left, and yet another triangle should be added after the five-part linear piece. This last triangle is closed toward the center, while the first triangle is open toward the center. Clearly Judd was not entirely certain of this sequence, as the question mark indicates, but we know that it remained as it was. On this sheet it is also interesting to see his musings on repeated L-shapes with alternatingly closed and open forms; we also see these in simple and double rows, without interstices. These become more concrete in the next drawing (ill. 8) in a work consisting of five elements, which again takes up the idea of an L-shape, but now with three elements plus interstices, above each other and beside each other. In another configuration on the right of the sheet, there are four elements directly abutting each other. On the upper half of this sheet are four works which correspond to numbers 3, 4, 5, and 6 of the final series. These alternate between triangular and right-angled configurations, with the volumes forming the triangles clearly open on the long sides (on the left) and closed toward the center (on the right); meanwhile Judd was still debating the exact position of the other two works, considering y que involucra nuevamente el uso de la forma de "L", pero ahora con tres elementos espaciados, algunas en cima y algunas al lado de las otras. En otra configuración al lado derecho de la hoja, se aprecian cuatro elementos que hacen contacto directo unos con otros. En la mitad superior de esta hoja vemos cuatro obras que corresponden a los números 3, 4, 5 y 6 de la serie final. Estas alternan entre configuraciones triangulares y de ángulo recto.
do of a more expert finish within a radius of around 200 miles from Marfa, so a specialist was imported from Dallas. His report first identified the artist's expectations: "The design called for close tolerance fabrication with straight, true alignment having concrete pieces abutting and no spacing allowed for joints," as he put it in the preamble. In addition, he noted that "the concrete finish was to reflect the plywood forming grain and texture." The report concluded, "While the completed pieces generally appeared to meet typical industry standards, it was apparent they did not meet the design intent." He then listed the gravest defects: "Observed panel edges and sides".

1. All the single elements for all 15 pieces share the same dimensions: 2.5 x 2.5 meters (height x width) x 5 meters in length. The poured slabs are 25 centimeters thick and joined in such a way that the vertical slabs contain the floor, and the ceiling extends to the outer edges of the vertical slabs. This is the same structural system that Judd used for all his freestanding works, and which we will encounter again in the mill aluminum works. The individual elements come in four types: one short side open, both short sides open, one long side open, both long sides open. As a rule, any one type is used throughout a piece; there are only four cases where two types are combined.  

2. When these four works were finished, detailed inspection again revealed inaccuracies and sloppy workmanship. There was little hope

3. estaría cuando trabajaba en este segundo grupo, aunque no sería imposible que existieran los cuatro tipos desde un principio.

4. Todos los elementos individuales de las 15 piezas componen las mismas dimensiones: 2.5 x 2.5 metros (de alto y de ancho) y 5 metros de largo. Las planchas de cemento tienen 25 centímetros de grosor y se juntan de tal forma que las planchas verticales contienen el piso, y el techo se extiende hasta los bordes exteriores de estos bloques verticales. Esta es la misma estructura que empleaba Judd para todas sus obras "freestanding", y lo encontraremos nuevamente tratándose de los piezas de aluminio cepillado. Los elementos individuales son de cuatro tipos: un lado corto abierto, ambos lados cortos abiertos, un lado largo abierto y ambos lados largos abiertos. En general, se utiliza sólo uno de estos tipos en una cast out of square. A limited number would not meet industry standards." "Joints varied considerably, ranging from desired abutment to 3/4 inches." "Plywood grain reflected in the cast concrete varied excessively...considerable overall color and texture variations were noted between panels." "Excessive blow holes were noted apparently resulting from consolidation techniques."

5. The expert report closes with a recommendation to continue producing the elements with the same firm, on the condition that the firm committed itself to making considerable improvements above all in the preparation of the molds, in the preparation of the foundations, and by achieving greater precision in all details. At this point, more than a year had passed and it seemed that the artists' intentions would finally be realized.
passed since the last pieces had been made, and production issues continued to hold up the project. In fall 1982, an order was placed for a piece which was then finished before the end of that same year—the piece was no. 8. The position for no. 7 was left temporarily vacant. But the quality of the finished work was still problematic and as a result a start was not made on the next group until late summer of the following year. Again there was protracted discussion, which finally led to the existing contractor’s ceasing to be employed as such, and one of its senior staff members taking over sole responsibility for the production of the next four pieces. Nos. 7, 9, 10, and 11 were completed in November 1983—exactly three years after the first two works, which were finished in November 1980. The design process for these four pieces had been ongoing since late 1982. After the triangular configuration, open to the center (dating back to March 1981) had been used for piece no. 8, Judd worked out further variations for a rectangular configuration mainly with two, four and six elements, sometimes more. These elements were sketched at greater or smaller distances to each other; sometimes they abutted each other directly. It is noticeable in the drawings that Judd partly built on existing configurations, working out variations of these, but that he was also clearly interested in creating more extensive pieces with a greater number of constituent elements. We now see elements arranged in two rows, alternately open and closed, which, following one after the other, create the impression of light, transparent volumes or darker, shadowy volumes (ill. 9). As we can see in the upper half of a drawing, Judd is still trying to extend the L-shape of no. 6—to complicate the issue, one might say—obviously with the intention of positioning the volumes close to each other. Much later he found a solution which, as we will see, is all the more convincing in view of the fact that these attempted solutions were never realized. Of particular interest is Judd’s thinking on dimensions and proportions. On one sheet (ill. 10) four elements recur a little in the manner of a plaza, at smaller and greater distances from one another. On the upper left the proportions are marked as 7.4, the “vertical” distance between the two rectangles is one-and-a-half times their length, in other words, the full vertical length of the piece is 7 times 2.5 meters. The lateral distance between the two rectangles is double their width, so the full width of the piece is 4 times 2.5 meters. In the example to the right of this, the vertical distance between both pairs is 5 meters, so that the full vertical length of the piece is 3 times 5 meters; the distances left to right are 1 times 2.5 meters, another time 5 meters and yet another time 2.5 meters, which equals 2 times 5 meters in total. The obvious question is whether the distances in both directions are supposed to be nominally the same, that is to say, 5 meters vertically and laterally, or whether they are to be calculated in relation to the lengths of the sides, that is to say, 5 meters in one direction and 2.5 meters in the other direction. At the lower edge of the sheet we see this second possibility, in the shape of three 5-meter lengths—or 6 times 2.5—and three 2.5-meter lengths, which produces a proportion of 6:3, or 2:1. At the right edge of the sheet there is yet another variation where the distance between the four elements is half of 2.5 meters, giving a proportion of 5:9. Only in piece no. 10 did Judd decide for the unequal distance of 7.5 x 5 meters between the elements—i.e., the 7:4 proportion. By having the pieces in effect pull away from each other on such a large scale, he further increased the openness of these table-shaped, airy elements. Another interesting note (ill. 11) returns to the triangular configuration and in the upper half of the sheet repeats two triangles that already exist in pieces no. 5 and no. 8, plus the comment “the space penetrates to perimeter of the piece from outside” with reference to the elements that are open to the outside, adding “from inside” for those that are open to the center. But there is also a new idea on this sheet: triangles with the short sides of the rectangular volumes more or less”.
umes pointing to the center so that the “arms” of the triangles point out-wards. Once again Judd made a note of his thinking at this point: “more depth from outside inward,” and below that the word “reverse”; arrows indicate the direction in which the volumes are open. A further refinement is added in the margin: “based on triangle but inside is a hexagon.”

Having experimented with the configurations of the individual pieces, the final sequence is established (ill. 12): no. 7 becomes a three-part piece with two open volumes and one half-open volume—the lower version on this sheet. No. 9 is one of the triangles described in the previous drawing; no. 11 is the other tringle from the same sheet; and these two flank no. 10, which is laid out as a rectangle with such open volumes that they form a frame and nothing more. One of the most interesting sight lines runs through these transparent elements backward to the hermetic configuration of no. 9 and forward to the equally hermetic configuration of no. 11, where we see the square black opening of the central volume sitting precisely in line with the center of the four transparent frame-elements (ill. 13). I have to confess that this alternation between complete openness and closure, like the alternation between laterally expanding elements and the more dynamic triangular configurations, has never ceased to move me and to fill me with a sense of joy. It gives an immediate sense of what Judd was capable of and bespeaks

his unerring certainty as to which similarities and which differences are intrinsically of interest.

Luckily, the workmanship in these pieces proved to be up to standard, so Judd was free to plan the remaining four pieces. The drawings he made from this point onward show that he was contemplating pieces with larger numbers of elements. And there is now a preference for rows. In addition, he experiments with combinations of several different types of elements, as we see on a drawing from November 1983 (ill. 14). In its top-right corner it specifically says “check 4 types mixed.” We see combinations of elements that are open on one or on both long sides (in the center); below this

certero, en cuanto a qué semejanzas y qué diferencias son intrínsecamente inter-estantes.

Afortunadamente, la calidad del trabaj-jo en estos piezas resultó satisfactoria, así que Judd estaba libre para planear las siguientes cuatro piezas. Los dibu-jos que hizo de este momento en ade-ante muestran que estaba contemplan-dando piezas con mayor número de elementos, y ahora tiene una preferen-cia por las hileras. Además, experimentó con combinaciones de varios dife-rentes tipos de elementos, como observamos en un dibujo (fig. 14). En la esquina superior derecha de esta pá-gina se indica específicamente “revisar 4 tipos combinados”. En esta página vemos combinaciones de elementos que están abiertos en uno o ambos la-dos largos (en el centro); debajo de es-tos hay combinaciones de elementos con un lado largo o ambos lados cortos abiertos. Merced a la pena notar que un espacio de poco profundidad siempre se combina con uno profundo. En la parte superior de la página vemos una serie de volúmenes angostos con los extremos abiertos y a la derecha ve-mos la configuración opuesta, con volúmenes anchos. Judd siguió trabajan-do sobre estas ideas en más dibujos, los cuales no he incluido aquí, y pronto llegó a una decisión que respecta a las cuatro últimas piezas (fig. 15).

Este boceto se enfoca en los cuatro pie-zas individualmente y define el orden final; está fecha el 23 de diciembre de 1983. Los números 12 y 13 acaba-rón por ser transpuestos y, mientras que 1984 el número 12 se incrementó de cuatro elementos a seis. Ahora todas las piezas en este último grupo conta-ban con seis elementos constituyentes. Primo viene una hilera de seis formas largas, oscuras y equidistantes; esta es seguida por el número 13, con dos hila-ras de tres elementos cada uno, uno detrás del otro y desalinados por la mitad de la longitud en un lado. La fila delantera está abierta en ambos lados largos, de forma que la vista puede pas-ar a través de ellos hacia la fila tras-te, la cual está abierta al frente pero cerrada por detrás. El desplazamiento lateral origina impresiones fascinan-das, o ¿debería decir tal vez ilusiones? Las “formas de marco” abiertas se per-ciben en contra de zonas oscuras y la luz y sombra entran en juego. Percibi-mos un lado del rectángulo como oscu-ro y sombrío, el otro como iluminado, lo que nos recuerda otras piezas de for-mato pequeño que se acomodan de manera similar (como en la pieza de pared de tripal).

El número 14 también combina dos ti-pas de elementos y repite la idea de
long dark forms. This is followed by no. 13 with two rows of three elements each, one behind the other and shifted by half a length to one side. The front row is open on both long sides so that the gaze can pass through to the back row, which is open to the front but closed at the back. The lateral shift gives rise to fascinating impressions—or should I say illusions? The open “frame-shapes” are seen against darker zones and light and shade come into play. We perceive one side of the rectangle as dark and shadowy, the other as light, and in doing so recall other smaller-format pieces that are similarly laid out.

No. 14 also combines two types of elements and repeats the idea of a double row: the elements in the front row are open on both long sides, and those in the back row are open on both short sides. They are separated by a distance of 5 meters—twice as far apart as the previous configuration—which makes a very great difference to one’s physical perception of the piece. But for Judd these distances—besides their physical effect—were also to do with choreography. What starts as a row of six equidistant elements in no. 12—we are familiar with this arrangement from the stacks—becomes deeper in the next piece with its double row and pathways between the elements, only to become very much deeper in the next piece before closing right up again in the most compact arrangement of all where the work comes literally and metaphorically to a full stop. Without wanting to mix my metaphors too blatantly, it seems that this final crescendo of the series comes to a resounding close with one almighty roll on the timpani. We should bear in mind that the land opens out at this point like a pair of scissors (see ill. p. 3); that is to say, the distance between these last pieces and the buildings of the Chinati Foundation (which follow a curve) is much greater than that of the first pieces in the series. They are as impressive serie están orientados hacia las terrazas de Chinati y, aún más que en las piezas interiores, estas últimas cuatro puede decirse que tienen un lado ‘fronal’ o ‘visual’, lo cual revela su potencial para producir una interacción de luz y sombra más dramática desde lejos que desde cerca. Nos percatamos de una modulación de oscuro a claro, que comienza con los seis volúmenes casi negros, procede a los rectángulos un poco más claros, hasta llegar a las
from a distance as from close up, and their outlines stand out clearly against their surroundings (ill. 16). Embedded in a carpet of yellow grass, they run parallel to and well below the horizon line, which here and there is crowned by majestic mountains. Clearly the pieces in the series are oriented toward the Chinese grounds and, more so than in the previous pieces, these last four can be described as having a "front" or a "viewing" side, which reveals their potential for an interplay of light and shade more dramatically from a distance than from close up. We become aware of a modulation from dark to light, which starts with the six almost black volumes, proceeds to the somewhat lighter, intersecting rectangles, and on to the still lighter parallel rectangles, until it arrives at the completely transparent open forms at the end of the series. And we realize that not only the forms, but also the distances between the elements in each of these pieces, are a function of light.


Compared to the concrete pieces, the design process for the 100 aluminum pieces was relatively straightforward. On the other hand, however, the scale of the installations in the two former gun sheds looks today, this was by no means a foregone conclusion. The

edificio. Se tardó un total de más de seis años en completar este proyecto. La primera constancia escrita de este proyecto data del mismo día que la primera documentación de las obras de concreto, es decir, del 1 de mayo de 1979. Sin embargo, la descripción es aún más vaga, y señala simplemente que "el artista deberá crear y plantear la instalación de ciertas esculturas, cuyo número y naturaleza deberán ser determinados a discreción absoluta del artista". El contrato añade, interesantemente, que estas obras serán "construidas en el interior del Edificio... de forma que la obra se convierta en parte de un concepto estético de estructura y arte, pero que pueda ser removida al ser desmantelada." Desde un principio, la intención fue crear una simbiosis de arte y arquitectura.
business of working out a harmonious relationship between the individual pieces and the architecture that was to give them shelter, proceeded step by step and even included the “refinement” of certain aspects of the architecture of the building. All in all it took over six years to complete this project.

The first written record of the project dates from the same day as the first documentation of the concrete works, that is to say, 1 May 1979. However, the description is even more vague, and simply states that “the artist shall create, and plan the installation of, certain sculptures, the number and nature of which shall be determined in the artist’s sole discretion.” The contract then adds, rather interestingly, that these works are “to be built into the interior space of the Building ... so that the Works become a part of an artistic concept of structure and artwork but can be removed if dismantled.” From the outset the intention was to create a symbiosis of art and architecture, or as it is put in the updated contract of one year later, “to form a unified aesthetic entity of works and space.” Evidently Judd had set himself the task of creating one project in the open air and integrating the other into an interior and—as we already know or at least suspect—making a connection between the two. But there was still a long way to go before that point could be reached, and it is hard to overstate...
the importance of the fact that what today distinguishes the Chinati Foundation and makes it so special in fact evolved step by step and was never the implementation of some a priori plan. At the same time, the contracts do confirm that the idea of integrating different realms existed from the outset.

The contract refers to Judd as both artist and architect, with responsibility for conceiving and overseeing any alterations or adjustments to the architecture required by the works of art, and endows him with the necessary freedom to do so. It would be hard to imagine a more generous arrangement by the patron—the Dia Art Foundation, who sponsored this project, too. The contract reflects the sponsor's high level of trust in Judd's artistic capacity, and it is clear that the generous financial resources of the Foundation allowed it to act on this trust. Dia agreed in the contract to fully finance the production of the works and any necessary alterations to the architecture; it further took responsibility for the future care and preservation of the works. A museum-like organization was envisioned, open to the public and with a permanent staff. This was the plan for all the projects, including the installations of works by John Chamberlain and Dan Flavin.

It may have come as something of a surprise that the aluminum pieces were not initially intended for the two gunsheds but for a building in the center of Marfa that had once been a store for wool and mohair. This consisted of three sections which, although they were adjoining, were of different heights and widths. At first Judd planned to install a group of aluminum boxes and some other works in this former wool store. Precisely which works was not yet decided. His main concentration at this point was on the details of the aluminum boxes, that is to say, on their size and the specifications of the material. Mill aluminum is the name given to the aluminum as it arrives from the mill. It can be produced from very different alloys. In 1978 a first work was contracted out to the firm of Lippincott. This piece arrived in Marfa in January 1980. This first prototype already had the final measurements of 41 x 51 x 72 inches and was made from mill aluminum. However, the alloy used for this prototype had a relatively dark color and a matte surface, which was not acceptable to Judd. Two further prototypes were therefore made, and there were lengthy discussions on an alloy that would be relatively stable but which would also have a shimmering surface. During the coming months efforts continued to find a suitable material and to work out the production details; in the meantime Judd also refined the artistic concept little by little.

Initially he had a group of 25 aluminum pieces in mind, but by spring a obra inicial con la empresa Lippincott. Esta pieza llegó a Marfa en enero de 1980. Este primer prototipo ya tenía las medidas finales de 41 x 51 x 72 pulgadas y estaba hecho de aluminio cepillado.3 Sin embargo, la aleación utilizada para este prototipo tenía un color relativamente oscuro y una superficie mate, lo cual no era aceptable para Judd. Por ende, se hicieron dos prototipos más, y hubo bastante discusión respecto a una aleación que fuera relativamente estable pero que también tuviera una superficie reflejante. Durante los meses venideros los esfuerzos continuaron para encontrar un material conveniente y para negociar los detalles de la producción; mientras tanto, Judd también refinó el concepto artístico poco a poco.

Inicialmente tenía en mente un grupo de 25 piezas de aluminio, pero para la primavera de 1980 el total había aumentado a 70 u 80.4 El renovado contrato del 1 de mayo de 1980 hace referencia a un total de 75, puntualizando que debían ser instaladas en el edificio planeado "y en cualquier otro espacio adicional que sea necesario". Memo-

randa posteriores, del 4 de junio y el 8 de agosto, se refieren a 86 y 90 piezas, respectivamente. El segundo documento estipulaba que "este cifra es aproximada pero no definitiva".5 El siguiente enero un nuevo contrato se realizó que mencionaba "100 esculturas más o menos" y por primera vez hace referencia a su instalación en los dos almacenes de armas. Con ello, el aporte del artista quedó asentado; la frase indecisa "más o menos" tiene sus raíces en los diversos tamaños de los dos edificios y de sus entradas y el diferente acodado de las paredes de parititura en el espacio principal. Judd claramente deseaba retener cierto espacio para realizar cualquier cambio de último momento.

El diseño de las piezas de aluminio llevaba ya tiempo de haber sido decidi- do. En abril y mayo de 1980 Judd dibu-
1980 the total had risen to 70 or 80. The renewed contract of 1 May 1980 refers to a total of 75, stating that they are to be installed in the intended building “and in whatever additional space is necessary.” Later memos of 4 June and 8 August refer to 80 and 90 pieces respectively, the latter with the proviso that “this figure is close but not yet firm.” The following January a new contract was drawn up which refers to “100 sculptures more or less” and for the first time alludes to their installation in the two former gunsheds. With that the artist’s side of the project was decided; the slightly inexact “more or less” has its roots in the different sizes of the two gunsheds, their differently sized entrance halls and differently placed partition walls in the main space. Judd clearly wanted to retain some room for making any late changes.

The design of the aluminum pieces had long been decided. In April and May 1980 Judd drew a total of 75 configurations in two batches (ills. 18, 19), which were soon followed by another 13; the remaining 12 had to wait until May 1984. The first stack of drawings predominantly uses configurations that had already been tried in other ensembles, specifically in the 15 plywood pieces from 1974–76 and the correlating wall pieces from 1978. These include half and full subdivisions as well as volumes without any subdivisions. These are some examples: half-divided, fully divided, not divided. Of course it’s possible to place half divisions vertically, horizontally, or diagonally, and either to have them run from the center to the short side or to the long side; similarly they can run from front to back or from top to bottom. The same applies to the full-length divisions, even if there are many fewer variants of this type. In addition it is also possible to do without divisions altogether, which produces the fewest variants of all. But then Judd introduced a small complication, and combined single and double divisions, both in the case of perpendicular and diagonal panels. The distance between these panels is always 4 inches; half divisions, full divisions, and a distance of 4 inches are the three constants in these pieces. This in turn generates special configurations such as the double-walled volumes, which can be repositioned on a horizontal axis—either closed or open, or their top raised by 4 inches. The side walls can also be set back by the same 4 inches, as in the case of the short sides, or all four sides can be set back, or just the top side. Particularly intriguing divisions arise from combinations with diagonal divisions, when the dividing panel begins in one corner and finishes 4 inches away from the other, or when there is a 4-inch gap on both sides.
(ills. 20, 21). Then the double panel can also mark the center, or run from the center of the top into one corner, or come to a halt 4 inches away from a corner, or create a double gap on both sides. Each of these different positions alters the angle of the dividers, which in turn creates new spatial situations that can be closed, open, or half-open and which—most importantly—reflect light in different ways. Depending on the position of the sun, these more obtuse or more acute angles are lighter or darker, but broadly speaking the wider, more open areas are lighter and the narrower ones are darker. Between these two extremes is an infinite variety of gradations in the most delicate silver-gray tones. Since the panels also reflect the surroundings, they reflect the colors of the grass, the sky, the trees, and the rising and setting sun, so that the colors of the installation are in a state of constant flux. Naturally the orange tones that come with the evening light are spectacular, but it is the ordinary daylight that brings out most clearly the subtlety of the material and the forms, including such fantastic sights as a dark volume with a band of light, or the dark tunnel between two light-filled volumes, or the prismatic, reflective vertical bands that are so confusing in this double reflection. These very different appearances derive from the strictly limited set of tools of horizontal, vertical, and diagonal divisions restricted to half divisions, full divisions, and the constant distance of 4 inches. One hundred possibilities were devised and realized, and we can assume that many more exist which were of no further interest to Judd. With his one hundred variants, he had already created a huge spectrum of possibilities, and it was interesting to see this potential realized and to experience what it means when an angle is increased by a few degrees, when a volume is opened at the top or the sides, when a wall is shifted by a few inches, when a block is divided equally or unequally, and what it is to reinforce or to blur these spatial solutions by allowing the light to fall on them in a particular way.

But I am getting ahead of myself here, and want to return to the design process concerned with the architectural adaptation of the buildings that were to house the works. The original choice of site, the wool and mohair store in the center of de forma igual o desigual, y lo que significa enfatizar o atenuar estas soluciones espaciales, permitiendo que la luz caiga en ellas de una manera particular. Pero nos estamos adelantando, debemos regresar al momento del proceso del diseño que corresponde a la adaptación arquitectónica de los edificios que fueron usados para albergar los trabajos. La elección original del sitio, la tienda de lana y mohair en el centro, había sido rechazada a favor de los dos antiguos edificios para almacenar armas ubicados en el lugar que ocupa el fuerte D. A. Russell, ahora abandonado, en los alrededores de Marfa, donde se encuentra también la Fundación Chinati. Documentos históricos muestran dos edificios largos y planos con pequeños cristales en los lados largos, que llegan al suelo (fig. 25). Las paredes exteriores están hechas de ladrillo, y los pisos y techos son de concreto. Columnas de concreto sostienen los techos. Ambos edificios tienen 63 pies de ancho, pero uno cuenta con un área adicional y tiene un piso de 18,000 pies cuadrados, mientras el otro mide apenas 17,000 pies cuadrados. Los dos edificios de almacenaje de armas se terminaron de construir en 1939 y tenían cabo para 34 y 32 camiones respectivamente. Judd hace dos alteraciones significativas a los edificios: quita las puertas de
town, had been rejected in favor of the two former gunsheds on the grounds of the then empty Fort D. A. Russell on the outskirts of Marfa, where the Chinati Foundation has its home. Historic documents show two long, flat buildings with smallish windows to the front and large openings with small glass panels on the long sides, reaching right down to the ground (ill. 25). The external walls are made of brick; the floors and the ceilings are concrete. Concrete columns support the ceilings. Both buildings are 63 feet wide, but one has an extra bay, with a floor space of 18,000 square feet, while the other is barely 17,000 square feet. The two gunsheds were completed in 1939 and had room for 34 and 32 trucks respectively.

Judd made two significant alterations to the buildings: he removed the doors on the long sides and replaced these with windows with cross-shaped spars, and he covered the flat roof with a curved corrugated iron roof (ill. 24). Otherwise the buildings were left in their original state. The floors are still uneven today and the doors only close with some persuasion. There is a striking contrast between the roughly finished buildings and the precision of the art works, raising the question of the supposed preference of the so-called Minimalists for a "white cube." This preference is a myth. The white cube was never Judd's preferred option and his own practice refutes any such suggestion. None of his buildings has the slickness that's common in designs nowadays, which is equally alien to the buildings he renovated for the Chinati Foundation. What they do have is clarity and coherence. Judd hated confusion.

During the first year that he was planning a large-scale installation of aluminum pieces, all sorts of ideas were evolving in parallel. Most of the pieces were designed in spring 1980; at the same time the doors on both sides of the gunsheds were removed to make way for windows. All summer long these new windows occupied Judd's mind; different firms were invited first to make a prototype window and then to put in a bid for the whole project. After numerous discussions concerning the production of these four-part windows with anodized aluminum frames, finally in spring 1981 a firm was contracted to produce the windows and sliding doors for both buildings. These were put in between summer 1981 and summer 1982. Meanwhile, the production of the aluminum pieces was under way and the first 21 were installed in the south gunshed in November 1982. The second group of 18 works was delivered in the following May, and the third with another 18 was ready in November, which meant that the installation in the south gunshed was complete and work could already begin in the north gunshed. A fourth group of another 18 pieces was delivered in summer 1984, the next 9 arrived in summer 1985, and the remaining 16 were finished in summer 1986. After two years devoted to planning and four years of production, the installation of the 100 aluminum pieces was a fait accompli.

Over the years, the leaking roof was always a problem. Whenever there was heavy rain the aluminum pieces had to be covered with sheets of plastic, and in extreme weather conditions, there were puddles of water on the floor. Even repeated repairs and a new roof covering didn't solve the problem. Judd therefore devised a plan to cover the flat roof with a barrel vault, which would also raise the architectural profile of the two buildings. The barrel vaults doubled the height of the buildings and were to be glazed at either end, so that the semicircular roof space would be transparent from end to end, while the sightlines in the rectangular space below ran from one side to the other. Both roofs were constructed in 1984–85 and were finished around a year before the last sculptures were installed.

In two deft moves Judd had turned ventanas y puertas corredizas para ambas construcciones. Estas se instalaron entre el verano de 1981 y el verano de 1982.

Mientras que la producción de las piezas de aluminio estaba en proceso, las primeras 21 se instalaron en uno de los almacenes de armas (el del lado sur) en noviembre de 1982. El segundo grupo de 18 se entregó en el mes de mayo, y el tercer grupo con otras 18 estuvo listo en noviembre, lo que quería decir que la instalación en el almacén de armas sur estaba completa y el trabajo podía empezar en el almacén del norte. Un cuarto grupo con otras 18 piezas se entregó en el verano de 1984, las siguientes 9 llegaron en el verano de 1985, y las 16 restantes se terminaron en el verano de 1986. Después de dos años dedicados a la planeación y a la producción, la instalación de las 100 piezas de aluminio se había hecho realidad.

A lo largo de los años, las gateras en el techo fueron siempre un problema. Con cada lluvia fuerte, las piezas de aluminio se tenían que cubrir con plástico, y en condiciones de clima extremo, se formaban charcos en el piso. Ni siquiera las continuas reparaciones y el nuevo recubrimiento del techo pudieron resolver el problema. Judd, por lo tanto, ideó un plan para cubrir el techo plano con una bóveda de medio cañón, con lo que quedaba elevado al mismo tiempo el perfil arquitectónico de los dos edificios. Las bóvedas de medio cañón doblaron la altura de ambas instalaciones y debían ser vidriadas en cada extremo para que el espacio semi-circular del techo fuese transparente en toda su extensión, mientras que las líneas de vista en el espacio rectangular abajo corrían de un lado a otro. Ambas techos se cons-
ordinary, insignificant buildings into architectural structures. Between the thin walls at either end, a long sequence of windows maintains a constant rhythm which gives the building an unexpected lightness (ill. 23). Each shed is crowned by an imposing roof whose curvilinear lines contrast with the rectangular tectonics of the ground floor; the barrel vault itself is optically relieved by the undulating edge. Seen from the ends the buildings have a certain majesty and one can imagine the additional lightness that would have come from glazing the semicircular ends, but the main view is at ground level, looking from the side through the glass walls into the interior with the aluminum pieces and beyond them to the open field with the concrete pieces. From this angle everything connects—indoors and outdoors, aluminum and concrete, blocks and barrel shapes, transparency and closure, light and shade, nature and built spaces. Judd, who was so supremely sensitive to spaces—precisely able to grasp and to interpret them—responded to the polarization of longitudinal and latitudinal axes. He distinguished between the "given axis" and the "main axis"; the longitudinal axis was the given axis, while the main axis ran through the glass wall, through the broad, flat interior space and out through the second wall. "Instead of being long buildings," he said, "they become wide and shallow buildings, facing at right angles to their length." The idea of two axes, at right angles to each other, and which, by being of equal importance, produce two equally important viewing sides, had been a feature of his sculpture at least since the late 1960s, but it is only in the gunsheds that this takes on truly monumental proportions. Moreover, this idea connects the art inside the building with the architecture around it and culminates in a "uni-

fied aesthetic entity of works and space," as it was once described in the contract with the Dia Art Foundation.

Inside the space, Judd responded to the existing features of the buildings and took into account the pattern on the floor and the distances between the columns when it came to placing his sculptures (ill. 22); he did nothing to the partition walls and the protruding side-spaces in the entrance hall, although these are at odds with the rhythm in the main hall and required a separate installation scheme. The installation of the aluminum pieces in the main space is oriented longitudinally toward the central and side naves created by the two rows of columns; latitudinally it is oriented to the bays, each of which contains two windows. Thus the floor space is divided into three lengthways and into four laterally, i.e., each bay has 3 times 4 squares, or 9 times 4 across the full breadth of the space.

On entering the hall, one is met by the sight of three long rows of silver, shimmering boxes, placed exactly at the center of the three naves and positioned one behind the other in such a way that there is always one square of floor free between them. Laterally, they always relate to one half of a window and the relevant square of floor, which means that they deviate from the center of the lateral axis. But what strikes one most powerfully in this arrangement is the multiplicity of sights generated by this one type of sculpture. These same-size boxes appear as multifarious as if they were constrained neither by rules nor principles. Their sides can be open, as can the ends or the tops, with light slits or dark channels, gleaming like mirrors, unsettled in their configurations with forms seemingly dissolving and evoking illusions of prismatic reflections. Although their construction is purely factual and the relevant details plainly visible and not manipulated in any way, they are nevertheless mysterious and resist rational explanation.

During the installation process, Judd had taken care to ensure that different kinds of boxes were placed directly next to each other so that this optical multiplicity would be immediately apparent. He resisted the notion of bringing together all the horizontally divided shapes, for instance; he always viewed seriality as a chance to develop the potential of a form. His systems were strictly

verdaderamente monumentales. Por otra parte, esta idea conecta el arte en el interior del edificio con la arquitectura que lo rodea y culmina en una "entidad estética unificada de obras artísticas y espacio", como alguna vez se describió en el contrato con la Fundación de Arte Dia.

Dentro del espacio, Judd respondió a las características existentes de los edificios y tomó en cuenta el patrón del piso y las distancias entre las columnas al colocar sus esculturas (ill. 22). No realizó cambio alguno a las paredes divisorias ni a los espacios sobresalientes en el pasillo de entrada, aunque éstos desen- nan con el ritmo del salón principal y requirieron un esquema de instalación diferente. La instalación de las piezas de aluminio en el espacio principal está orientado longitudinalmente hacia las naves central y lateral creadas por las dos hileras de columnas; y latitudinalmente está orientado hacia las mira- res, cuyos tienen dos ventanas cada una. Por lo tanto, el espacio del piso está dividido en tres por la larga y en tres por lo ancho, es decir, cada mirador cuenta con cuadrados de 3 x 4 pies o cuadrados a 9 x 4 en toda la amplitud de su área.

Al entrar al salón, una división tres largas hileras de destellores cajas plateadas, colocados exactamente al centro de las tres naves, una detrás de la otra, de tal manera que siempre hay un cuadrado del piso libre entre ellas. Lateralmente, siempre están en relación con la mitad de una ventana y el correspondiente cuadrado del piso, lo que significa que se desvían del centro el eje lateral. Po- ro lo más importante de esta disposición de elementos es la multiplicidad de vis- tas generadas por este tipo único de es- cultura. Estas cajas, todas del mismo tam- aino, parecen tener múltiples formas como si no estuvieran sujetos a reglas ni a principios. Sus lados pueden estar abiertos, así como sus orificios, o las partes superiores, con franjas de luz o ca- nales oscuros, brillando como espejos, inquietantes en sus configuraciones, sus formas disolviéndose aparentemente y evocando ilusiones de reflejos prismáticos. A pesar de que su construcción es puramente objetiva y los detalles más importantes son claramente visibles, carentes de cualquier manipulación, re- sultan misteriosos y se resisten a cual- quier explicación racional.

Durante el proceso de la instalación, Judd se había esmerado para que cajas de diferentes tipos fueran colocados directamente una en seguida de la otra, para que esta multiplicidad óptica fuera perfectamente evidente. Se resistió a la idea de juntar todas las figuras divididas horizontalmente: por ejemplo, siempre concibió las secuencias como una oportunidad para desarrollar el pa-
non-didactic. During the design stages of the aluminum pieces, he had ensured that approximately the same number of boxes were open at the sides, the ends, or the top, and he mingled these different versions in the hall so that the light could refract in the ensuing angles and corners, transforming their infinitely clear structures into magical moments of amazement.

Translated from German by Fiona Elliott.

NOTES

1 In the early years, it was referred to either as the “Marfa Project” or “The Art Museum of the Pecos”; it was only in 1987, after Judd and the Dia Art Foundation went their separate ways, that the name “Chinati Foundation/La Fundación Chinati” was introduced.

2 “Can’t make a square,” noted in a drawing of February 1983.

3 In this case, my reading of the previously mentioned elements with openings on the short side and on half of the long side would be misleading.

4 The works in question are nos. 1, 7, 13, and 14.

5 These and the following quotes are from a letter written on 6 July 1982 by Robert Kirk, Architectural Concrete Association Inc., Addison, Texas.

6 The work in question is PO nos. 78-76, installed in the Mansana de Chinati.

7 Note from Dudley Del Balso, dated March 11, 1980: “Early discussions of mill aluminum works for Dia project ca. 25 were contemplated originally but Don had already up to 80 in mind when we met in Houston.” Memo by Dudley Del Balso, dated 28 April 1980: “Don, Jamie and I went to Lippincott April 17 to discuss the proposed series of 70 mill aluminum works.”

8 Both memos from Dudley Del Balso to the Dia Art Foundation, the first sent directly to Heiner Friedrich.

9 There is some confusion here, since some of the configurations were drawn twice and had then to be subtracted from the overall total again; a memo written by Dudley Del Balso on 16 April 1981 and sent to the Dia Art Foundation confirms that the drawings for nos. 1–88 do exist.

10 Collection of the Dia Art Foundation.

11 Collection of the Chinati Foundation.

12 There are 70 windows and 2 sliding doors.

13 The idea of a barrel vault came from a quonset building nearby in Valentine.

14 This plan was postponed at the time for financial reasons.

15 Donald Judd — Architektur, Münster 1989, p. 73.

NOTAS

1 En los primeros años, se le decía el “Proyecto Marfa” o “El Museo de Arte del Pecos”; en 1987, después del rompimiento entre Judd y la Fundación de Arte Dia, se comenzó a manejar el nombre “Chinati Foundation/La Fundación Chinati.”

2 “No puede ser un cuadrado,” se dice en un dibujo de febrero de 1983.

3 En este caso, mi lectura de los elementos mencionados con aberturas en el lado corto y en la mitad del lado largo sería engañosa.

4 Los trabajos en cuestión son los núms. 1, 7, 13 y 14.

5 Esta cita y las siguientes son de una carta escrita el 6 de julio de 1982 por Robert Kirk, de la firma Architectural Concrete Association Inc., de Addison, Texas.

6 La obra referida es PO nº 78-76, instalada en la Mansana de Chinati.

7 Nota de Dudley Del Balso, fechada el 11 de marzo de 1980: “Las primeras discusiones de obras de aluminio cepillado para el proyecto Dia, se pensó en unos 25, pero Don tenía en mente hasta 80 cuando nos encontramos en Houston.” Memo de Dudley Del Balso, fechado el 28 de abril de 1980: “Don, Jamie y yo fuimos a Lippincott el 17 de abril para discutir la serie propuesta de 70 obras de aluminio cepillado.”

8 Ambas notas de Dudley Del Balso a la Fundación de Arte Dia; el primero fue enviado directamente a Heiner Friedrich.

9 Aquí hay cierta confusión, puesto que algunas de las configuraciones se dibujaron dos veces y luego debían ser restadas del total nuevamente. Un memo escrito por Dudley Del Balso el 16 de abril de 1981 y mandado a la Fundación de Arte Dia confirma que los dibujos para los núms. 1–88 sí existen.

10 Colección de la Fundación de Arte Dia.

11 Colección de la Fundación Chinati.

12 Hay 70 ventanas y dos puertas correderas.

13 La idea de una bóveda de medio cañón surgió de un edificio quonset en el vecino pueblo de Valentine.

14 Este plan fue pospuesto en aquel entonces por razones económicas.

15 Donald Judd — Architektur, Münster 1989, pág. 73.