PART 1

SUSAN HIRSCHFELD

[00:11] Good evening, ladies and gentlemen. My name is Susan Hirschfeld. I'm assistant curator at the Guggenheim, and I'm delighted to welcome you all here this evening to the second of two lectures being given in conjunction with the Naum Gabo exhibition. I am particularly pleased to introduce tonight's speaker, Dr. Stephen Nash, who organized the Gabo retrospective and wrote the main catalogue essay. Dr. Nash received his PhD from Stanford University, and wrote his dissertation on the drawings of Jacques-Louis David.

Dr. Nash subsequently served on the art history faculties of the University of Delaware and the State University of New York at Buffalo. He served on the staff of the Albright-Knox Art Gallery [00:01:00] in Buffalo from 1973 to 1980 as research curator, chief curator, and then assistant director.

In addition to the many lectures and symposia papers he has delivered, Dr. Nash has also written extensively for art journals and publications on such subjects as David, Rodchenko, [Carilli?], and Bonnard. While at the Albright-Knox Art Gallery, Dr. Nash organized exhibitions on Ben Nicholson, modern European sculpture from 1918 to 1945, and also on constructivism and the geometric tradition in the collection of the McCrory Collection.

Since becoming chief curator and deputy director of the Dallas Museum of Art in 1980, Dr. Nash has prepared numerous exhibitions, including a show of Picasso's graphics, and he was coorganizer of the 1984 exhibition of Pierre Bonnard's [02:00] Late Paintings.

Most recently, Dr. Nash has been working with the Brooklyn Museum on the preview exhibition of Impressionists and nineteenth century Art from the Musée d'Orsay. And Dr. Nash is currently preparing an exhibition of works from the Nasher Collection that will be seen not only in Dallas but at the National Gallery in Washington.

Dr. Nash has long been interested in constructivist art, and we are indebted to him for his major contribution in this field. His work on the movement's founder adds much to our understanding of Gabo and of constructivism. I am pleased to welcome Dr. Nash on this occasion and to introduce his lecture, "Naum Gabo Rediscovered: Revelations on a Constructivist Pioneer." Thank you. Steve.

STEPHEN NASH

Thank you very much, Susan. [03:00] I am delighted to be here, delighted the exhibition is here. It's interesting to see it in these spaces and to think that, as a student in Munich, about 1910, 1911, Gabo became acquainted with Frank Lloyd Wright's theories, writings on architecture, and that particular experience was something very important in provoking his interest in architecture and architectural writing, a strain in his work which continued throughout most of his life. So these two pioneers now come face to face again in this location. I think it's a little bit difficult to

have the last word on Frank Lloyd Wright, but I'm delighted with the installation. I think it looks very fine here.

I'm here to share a little bit of behind the scenes information about the exhibition with you. When I started the project, it seemed to me that Gabo represented something of a contradiction in terms. [04:00] He is certainly one of our most famous twentieth century artists, about whom however, basically little is known in terms of the fine details of his development, or at least has been up until this point. He is certainly in all the histories of modern sculpture. He is correctly singled out as the most central connecting link in the long constructivist tradition, from its early heroic years, the morally [driven?] movement in Russia about the time of the revolution, to the German affiliations in the 1920s -- Bauhaus movement, into Paris -- connections with the Abstraction-Création group there, to the English avant-garde during the '30s and '40s, finally into the propagation reinterpretation of constructivist principles in post-war America.

Gabo has worked through all of these evolutions [05:00] with endurance and with integrity, and stood very much as a symbol of connection with those heroic years of the past. And certainly the main landmarks of his career are well known. I have on the screen here one of the Constructivist Heads from very early 1916, paired with another one of the Heads, *Head in a Corner Niche*, from 1917. These works have long stood in fact as icons of the constructivist movement. They announced very dramatically in the years 1915 to '17 principles that would concern Gabo throughout most of his long evolution in fact -- the replacement of solidity and mass in sculpture with elements of light, space, air, movement, and dynamism.

On into the tower constructions of about 1921, '22. A piece at Yale on the left. A large-scale [06:00] reinterpretation that he did late in life of a 1921 column piece, one version of which is in the Guggenheim Museum on the right. These works introduced new materials -- glass, steel, plastics -- into the modern constructivist vocabulary, and they also proposed heroic skeletal structures for outdoor settings, public spaces. On into works from the late '20s into the '30s, now in a totally purified constructivist vocabulary, totally clear, transparent, plastic structures, deriving in some cases out of mathematical formulae, in some cases dealing with an attempt on Gabo's part to crystallize, or give a feeling for, certain perceptions about natural laws, about the curvature of space, about spatial continuity, etc., driven as it were by these types of scientific considerations.

The stringing [07:00], then, of course, which is so famous an element of his art, beginning about 1941, '42, with *Linear No. 1* variation on the left and *Linear No. 2* on the right. The introduction of the use of these very fine nylon filament lines which add to his plastic structures this new dimension of luminosity, of airiness -- turning real surfaces, solid planes into virtual planes and adding this greater complexity of surface and space folding in upon itself. And finally, the large-scale projects very late in life, some of which, as in the Linear No. 3 With Red on the right, is in this exhibition, continuing on and developing further certain ideas that were prominent in his work during the '40s and '50s. And finally, the opportunity to work on a monumental scale in certain cases -- The Bijenkorf Building [08:00] construction in Rotterdam, which allowed Gabo to realize, partially at least, this ambition which was lifelong, to move out of the studio and into the open public spaces.

At a time when Modernism has suffered so many critical slings and arrows for its supposedly impersonal, cold abstractions, for its propagation of minimalist [excesses?], for its utopian ideology -- sometimes very restrictive, it is somewhat refreshing in fact to find someone who is a totally unrepentant, unreformed Modernist. As old fashioned as it may sound, Gabo believed very much in the communicative powers of abstract art, abstraction is a kind of universal language. He felt it could merge rationality and perception, sensuality, intuition, and feeling, and that it [09:00] could very much enhance and indeed help restructure human life and the human environment. This is what constructive art, with a capital C, meant to Gabo. It was to build, to construct as an engineer constructs, but also to make a positive contribution to real life.

As much as Gabo stands out, however, as a symbol and leader of the constructivist tradition, a great deal about his work, as I mentioned before, had remained enigmatic, unknown, subject to romance or confusion. Many important pieces from early in his career had long been thought to be missing, or still are missing in fact. Others have perished because they are made out of such fragile, such volatile materials as some of the early plastics, rhodoid and celluloid.

I show you slide of a work on the left, *Monument to an Airport*, that's in the Rhode Island School of Design, and you can perhaps see [10:00] how that black plane has buckled and wobbled so severely. This is a fortunate example, because in many cases some of these works that don't have proper ventilation or are subjected to heat have over the years simply disintegrated, and there's nothing left of them. There was recently a sculpture [murdered?] at the Wadsworth Atheneum in fact by leaving it in warm storage, and when the case was opened, it was simply a mass, a puddle, of plastic. The work on the right, one of the first column models. You can see the yellowing which has taken place in the plastic, and how volatile and unstable that particular material is.

In addition, Gabo lived through very stormy historical times. He had to move a great deal -- Germany, Russia, Germany again, on to Paris, England, United States -- driven by revolution, war, the rise of Nazism, etc. And in all of these moves, with this very difficult to recreate [11:00] background, it leaves a problem for tracing the documentation for various steps in his career. There are many letters and drawings that he did preserve throughout his lifetime, but those were basically unavailable to scholars before Gabo's death.

And just to illustrate one of the kinds of problems which has long plagued people who were interested in this general field, I show a painting, a very topical illustration in fact. This is a painting by Antoine Pevsner, Gabo's brother, which very recently sold at auction on the art market in London. This is a painting which is signed and dated 1914. Well, there was a certain amount of brotherly competition shall we say -- Pevsner was known to go back and re-date various early works, sculptures, paintings. And in fact, this particular painting could not possibly have been made before 1920 or so. So it's just one particular example of the many difficulties and areas of confusion [12:00] which had always surrounded Gabo's work and his relationship with his brother, relationship with the Russian avant-garde, etc.

The research and discoveries, however, which preceded our exhibition, have done a tremendous amount to expand the knowledge of Gabo and to put him into a much clearer, much more documented, fully documented, light. In fact, there have been numerous works which sort of

phoenix-like have risen from the ashes of neglect which for more than 50 years in some cases were considered lost -- still remaining perhaps in Russia, throughout Gabo's various peregrinations I talked about lost track of at one point or another.

Several of these works now have been rediscovered, have been reassembled, along with a great group of drawings, which for the first time have been subjected to thorough scholarly analysis, and a great deal of personal documentation about [13:00] Gabo's life and work and development. So through all of these elements, we now can put Gabo into a clearer light. I would like to share with you tonight some of these rediscoveries -- what it means to our picture of Gabo, his relationship to early twentieth century sculpture in general, and in the long run, what it meant to Gabo to be a constructivist artist.

His earliest works consisted mostly of watercolors and pastels. These were done at the time he was still a student in Russia at the Gymnasium in Kursk. And then in 1910, when he went to study medicine at the university in Munich, sent there by his father, who already had an artist son and a couple of engineer sons -- he felt that his younger son should be a doctor, so off Gabo went to Munich to study medicine, eventually switching however [14:00] into the natural sciences and engineering.

At that particular time, he did take up watercolor drawings. The work on the left is a very typical example from about 1910, 1911. It shows Gabo working in a mode which is very full of a [fantasieccla?] sensitivity, sensibility, relating to Art Nouveau on one hand. A little bit of Matisse coming into some of these drawings -- he knew Matisse from the [Shchukin?] collection in Moscow -- but also a strong influence from Mikhail Vrubel, the very progressive Russian Symbolist artist at the time, and I think you can see that sharing of [fantasieccla?] Symbolist identities here.

His first recorded sculpture, in terms of visual documentation, is a work done still in Munich, 1912, called *Head of a Slave* or *Head of a Negro*, and it was done after an experience on a street -- seeing a particular figure, [00:14:59] going back to the studio, working with whatever clay was at hand, in a mode at which is certainly influenced by German expressionism, both in subject matter and this rather rough modeling of the facial features.

We have to remember that Gabo had no formal training in art. These drawings which I show you are all that remain of those early years of his experimentation before he moved with the onset of World War I with his brother, Alexei, who was living with him in Germany, to Norway to escape the path of war, find peace and seclusion, and to turn to what he described at that point as his new vocation -- making art, being a sculptor.

And very suddenly, as if springing from the head of Zeus, there are these two sculptures, *Constructed Head No. 1* on the left and [16:00] *No.* 2 on the right, produced almost immediately -- 1915 and 1916 -- his first really mature sculptures making that tremendous jump away from the work we had just looked at on the left. There undoubtedly were a few experimental trials involved along the way, but nothing that survives -- just suddenly Gabo emerging in this very mature, very confident style of constructivist sculpture.

One of the most exciting finds, rediscoveries, which preceded the exhibition was the location in Gabo's studio of the long-missing *Head No. 1*. This work previously was known only from this very early photograph, published several times, but the work was thought to have long since disappeared someplace in Russia perhaps or in Germany, and it was very difficult [17:00] to really understand the structure, the inner complexities of this particular sculpture from this one very faded, mutilated photograph.

After Gabo's death, however, in the studio remains were discovered these pieces of plywood shown in the frame in the center of that slide on the right, which lo and behold, added up to an almost complete reconstruction of the head. It was put back together by Gabo's former studio assistant who had worked with him very closely for many, many years, and there were only two pieces that had to be remade out of old plywood that was still in the studio -- the two conical breast forms at the bottom. Other than that, the piece is totally intact so that we can now understand it fully in the [round?], be able to appreciate much more directly the complex interweaving of form which adds up to this honeycombed, or as Gabo would say, stereometric effect, where [18:00] space is defined by an intersection of planes rather than any kind of surface volume. And also, as you would see if you haven't already upstairs in the exhibition, this head has a tremendous kind of personal, immediate physical presence, so it really is a cause for celebration that this thing, that this very precocious sculpture has now come to light again.

What could have been behind this sudden, almost unfathomable leap of creativity that led Gabo from that *Head of a Slave* into these two *Constructed Heads*, *No. 1* and 2? Certainly a very central factor in this sudden development was Gabo's scientific training in Munich. I mentioned that he went there to study medicine, then the natural science, physics, mathematics, and eventually engineering.

Munich was at that time one of Europe's leading intellectual academic centers, and [19:00] Gabo, on the one hand, through his engineering courses, was totally imbued with the values of modern technology, of building practices, of the latest and the most efficient forms of construction at witnessed in the Eiffel Tower -- a structure which Gabo always revered throughout his life as the kind of model of modernity and new technology, and absorbed moreover a respect for the scientific principle in general -- and a scientific outlook towards life and the investigative properties of work as an artist.

Secondly, we have to remember that it was in general throughout Europe a period of tremendously exciting, indeed revolutionary breakthroughs on all the scientific fronts. There was an elation in the air in fact, and this is something that Gabo very much drank in as [00:20:00] a student, we know from his letters, various conversations, and later autobiographical writings in his diaries. It was a period of Rutherford's publishing of the model of the atom, for example; the development of quantum physics; Roentgen's discovery of X-rays, a man who had won a Nobel Prize and was on the faculty in fact at the University of Munich. All of these things -- Einstein's theory of relativity published in 1905 -- coming together, forming this atmosphere of tremendous technological idealism.

And this would leave a mark on Gabo throughout his life, the belief in technology as a power which can change life in general. He was at the dawn of a new era. He very much felt this

moment in history. And for him, and for other artists of his generation, it was a challenge to try to make art [21:00] which mirrored this, expressed this new dawning age, and also participated in it, helped make these changes. As Gabo himself put it, "Artist attempts to project what the collective human mind of his time feels and aspires towards," and later saying, "I wanted to create an image of the times we were living in and project it into the future." [As I say?] a key ingredient of those times was a very strong technological idealism, a positivism that went with that, a belief in the power of science to change humanity.

I show you on the right a slide from one of the many treatises on the fourth dimension, another scientific principle, or even metaphysical principle very much in the air at the time. Gabo knew about four-dimensional, n-dimensional geometries and theorizations -- all of these various scientific breakthroughs coming together to discredit, quite finally [22:00] and forcefully, theories of solid and static matter. We now knew -- he now knew that the most basic ingredients in the natural world were space, energy, and time, and these were elements which he set out to try to project into his sculptures.

On the art side, we know that Gabo made a trip, on foot in fact, to Italy, was very much impressed with Renaissance sculpture primarily -- came back feeling that there was a chance still, something in fact, as he said, "had to be done" in modern sculpture to echo those accomplishments of the past. He was living in Munich of course at a time when there was a great deal of modern art activity -- many exhibitions showing the most recent developments, both in German expressionism, cubism, etc.

And we also know that he took a couple of trips to Paris in 1912, 1913. He later said that he saw there a great deal of cubist [23:00] painting, and however, could he have seen any cubist sculpture? We really don't know. The *Head of Fernande*, or the *Cubist Head*, 1909, by Picasso was a work which was cast in bronze very soon after it was made, so possibly could have seen a cast of that work, which is so often compared with Gabo's *Constructive Heads*, *No. 1* and 2. And of the *Guitar*, on the right, 1912, construction in sheet metal -- probably could not have seen this work, which in the end has a closer affinity with some of Gabo's work -- this membrane structure out of planes and space, but since it was confined to Picasso's studio and we think that there really was not any interchange directly with Picasso, he probably could not have seen it.

An artist, however, that he would have come into contact with, certainly through his art, if not personally -- Archipenko was a friend of Gabo's brother Pevsner, who was living in Paris at the time, and was exhibiting in various salons [24:00] and other gallery shows in Paris in 1913 and '14, illustrated by the famous Médrano on the left here in the Guggenheim Museum, and a work from 1913, *Woman Before a Mirror*, which is now missing. Through works like this, Gabo would have come face to face with certain features, which seemed in a way to carry over into his work -- the constructive principle, the constructive technique in fact -- no longer a sculpture modeled or carved, but in fact it is assembled out of disparate elements. The geometrical analysis and restructuring of human anatomy. The introduction of very diverse modern material, such as glass, mirrors, metal -- all of these things have a carryover into Gabo's own development.

He later in life said that cubism was to him a disappointment. He was critical of it as something which never realized its own full potential, which [25:00] remained too tied to surface appearances. And he was always irritated by comparisons between Picasso's sculpture head and his own heads, saying that his work really had nothing to do with cubism. But in fact, as we look back through now some of the drawings which have come to light, we can see that there is a strong cubist influence and stimulus experienced probably just about in these years.

These are drawings which had never been published before. They're very difficult to date. There's no evidence directly that comes into play except the feeling of them working now in a very exploratory way with a cubist vocabulary. You can see, thinking back now to the Archipenko sculptures, this use of faceted forms, of planar structure for the human anatomy, angled back into space. The figure on the left is actually conceivably a very buildable figure. You have these shadings, which produce pockets of shadow in space in three dimensions. [26:00] The figure on the right, a more simplified typical, cubist pose, with the rough faceting of the contours around that figure.

I think that those drawings came just before the production of the first *Constructive Head*, and led into a study such as the one on the left, which is in the exhibition and documents, along with a number of other newly-revealed drawings, these attempts now to move into a slightly more analytical, more abstract figural language, resulting finally, in the *Head No. 1*, which brings to full fruition this sense of respect for form, economy of form; technological building practices, which he had absorbed in Munich; the use of the stereometric method, which I mentioned for structuring form in space; the attempt to find in fact an imagery [27:00] which bespeaks modernity -- these new building methods.

Gabo, however, did confide later that he was somewhat dissatisfied with *Head No. 1*, possibly because it was too unarticulated in the bottom sections, remained a little bit too tied to naturalistic models, and very rapidly moved onto a series of drawings, some of which again are in the exhibition, leading towards the *constructed Head No. 2*, just one year later. Now you can begin to see already in this drawing the transformation which is taking place -- the folded hands in front of the figure, which allow him to tie in that lower portion in a more articulated, dynamic fashion to the patterns which are seen throughout the rest of the head, both front and back.

This [28:00] sculpture is obviously still in a figurative mode, but in a way, the figuration is beside the point. It really has to be read in terms of the abstract values that it represents, going back to this sense of renunciation of mass and solidity, most importantly, in modern sculpture -- Gabo feeling that that core physical durability of sculpture was something that belonged to the nineteenth century, to Rodin's era -- that it was time to open that up, to blow it apart in a sense, and to allow space and light to circulate into the very core of the sculpture. There is no longer any kind of external skin around it. Volumes are judged not by the external surfaces of them, but by the amount of space which is displaced. Light and air penetrating in a very dynamic fashion, activated by a shifting [29:00] as you move around the structure, shifting pattern of reflections and shadows throughout these many very complex cavities.

The sculptures are put together in a highly sophisticated way, which is, as you will see in some of the pieces which we discovered in the studio, almost impossible to project from their flat form

into fully three-dimensional fashion, but put together with a real understanding for that kind of mathematical stereometric form.

The next step, as Gabo became more sophisticated, more sure of himself, confident of this stereometric method, is the large *Torso*, which is seen in its cardboard maquette form upstairs in the exhibition. We have this drawing, newly come to light, on the left, showing you again the endurance of the figurative theme now [30:00] broken into an even more complex, more thoroughly thought out and dynamic interchange in space of all of this planar infrastructure.

This is a sculpture which again was known only from this photograph taken at an exhibition in 1922, when the work was shown in Germany. Gabo was living at that time in Germany. He lost track of the sculpture when it went back from the exhibition to Russia, and in its sheet metal version here, is still to its day, lost. But very fortunately, in Gabo's studio after his death were found, first of all, on a small scale, the cardboard pieces, which, again, Gabo's studio assistant was able to put back together in a total recovery of form into the maquette for that large *Torso* of 1917.

And then later, a discovery which I myself had a [31:00] role in, in going through some portfolios, some old drawings cases which were left in his studio -- came across this on the right, this photograph of all these pieces just totally disassembled, dispersed, pieces of cardboard stuck together in a portfolio. And, recognizing a certain number of the elements, thought, ah-ha, maybe this in fact is the large-scale cardboard version of the missing *Torso*. And based on the maquette, which Charles Wilson had put together, he was then able to reconstruct almost fully -- again, there were just a couple of pieces missing -- this magnificent large-scale *Torso*, which now we are able to fully appreciate in the round, seeing it from the back as well, as we see in the slide on the right, so that we can understand both the more organic aspect of the sculpture, the figurative element -- there's this large womb-like emphasis [32:00] in the slide on the left -- but also, seen from the back, a much more architectonic structure, as if it were in fact one of those arches out of the lower structure of the Eiffel Tower, giving you a far more abstract reading in space.

I have to stress that at this point, Gabo really could have had almost no knowledge of what was happening on a contemporary scale in Russia -- the breakthroughs of Tatlin, Rodchenko, other artists, other sculptors of that ilk. Being in Norway, having very little contact with Russia, it's virtually certain that there was little exchange of photographs, little exchange of information by visitors coming out of Russia about these particular developments, so that Gabo really has to be seen in the context of Western European developments, and considered in the light of other artists who were attempting [33:00] to come to grips with this question of modernity, trying to create an image which gave a feeling, a sense, an expression of this new dawning era.

For instance, compared to Brâncuşi, this search for a purified essence of form, contemporaneous work. Boccioni's search for a Futurist sculpture, in which -- still life, in this case -- *Development of a Bottle in Space*, is opened up raggedly into space to absorb, to dynamically accommodate shiftings of shadow, a sense of force lines around the sculpture, changing patterns of light and atmosphere.

Duchamp-Villon's *Horse* from 1914, this sculptural metaphor, which in much different terms comes to grips with a technological mechanistic image, fusing [34:00] the horse's anatomy with a sense of machine-like imagery, giving you a sculptural metaphor of horsepower, of dynamism, of a chugging, forceful sense of this underlying new technological strength to the century.

Matisse, in a much different way, who at the same time was adopting traditional subject matter, but no longer with a sense of a Pygmalion reproduction of the human body, but rather using the human body as a field for the enactment of the most intense subjective personal intuitions in reacting to the modeling of the figure to the model herself and to the actual working processes.

Coming back then to the cubist work of artists like Picasso, Archipenko, Baranov-Rossine, [35:00] who on the surface at least are the closest comparisons to what Gabo was doing in 1915, 1916. Also, working with this active, very jagged layering of diverse elements so as to incorporate spatial projections, however, in a way which seems very subjective and spontaneous compared to the very refined, machine-like images which Gabo was trying to create -- and also not partaking, despite their interest in fourth dimension and higher mathematics, in that same kind of ideological background or foundation that we find in Gabo's work. So his art, in this European context, does stand out very clearly and does make a personal, very strong contribution to the development of modern sculpture.

He was, very soon however, [36:00] about to rejoin friends, other artists, in Russia, who were very like-minded, who at this time, as we've seen with Tatlin, were exploring concepts quite similar to those that Gabo was doing on a parallel plane. Just after the outbreak of the Russian Revolution, he returned to first Briansk, his hometown, with his brothers, and then quickly moved onto Moscow, where he took an apartment and stayed there in the heart of the Russian avant-garde for the next four five years. It was, needless to say, a period of tremendous artistic ferment, of exploration, of innovation in Russia at this period. It's a very complex period.

I know Charlotte Douglass went into it at considerable length. I cannot really go into the details of Gabo's Russian development, other than to give you in the time that's remaining a few comments on [37:00] what Gabo reacted to within that context -- what he took from it, how he remained in some ways basically outside of very basic elements in the work of Tatlin, Rodchenko, and other of his compatriots, and to show you some of the elements of a philosophical nature which he absorbed here and remained a long-lasting ingredient in his later development.

When he first went back to Russia, he was mostly concerned with realizing, on a monumental scale, the *Torso* from 1917 and the *Head in a Corner Niche* in metal. These were the primary sculptures of his first couple of years back in Russia. But we can now, through the drawings which have come to light, follow a parallel development on paper at least. And it's a fascinating evolution of Gabo's pictorial thinking, very much under the influence of these artists [38:00], of that particular period and ilk.

The drawing of a head on the left, very heavily worked crayon and chalk drawing, showing a constructed head in a rather cubist vocabulary, reminiscent to some degree of the *Constructed Heads No. 1* and 2, but also some feeling of that *Head of a Negro*, that first sculpture from 1912.

Then, however, we are able to follow a progression into a drawing -- there's very little evidence for dating these drawings, however one can lay them out in at least a tentative kind of sequence.

The next step in this unraveling is this smaller study on the right, in which you can see that the framing device around the head on the left now becomes a much more stated element. The work is obviously headed towards a kind of relief-like architectural conception. The elements of the face, facial features, are still strongly there, however, with the diagonal nose, [39:00] the slanting diagonals for eyes, the corner element of the shoulder in the lower right-hand corner.

And then taking it one step farther, we have a still more purified, linear, more abstract step in this general progression. You can see however that the basic forms are still very much there. And going still one step farther -- this is a drawing which is signed the reverse way -- upside flipped over so that if, however, you take this drawing, flip it over as we have here, it's very evident this general progression -- its place in this progression that we've been tracing.

The next step, however, is to move into sculpture, a work which is known, again, only from a photograph, about 1919 or so -- 1920. Gabo's first fully abstract cardboard relief -- this is a painted cardboard piece -- which also continues -- you can see the [40:00] [vasik?] vocabulary of the drawing on the right.

And I pair it with a sculpture now in a totally abstract mode, which shows you the final fruition of this general evolution -- Gabo now moving into plastic works, with which are now totally immaterial, totally transparent, form becomes a matter of reading reflection, of edges in space, moving very gracefully, gradually, connecting these various angled planes which cast off reflections in different directions. Both of these sculptures unfortunately still missing at this point, but some hope for their resurrection.

The point I want to make is that these works with their very finely-honed elegance, with this sense of refinement, with this weightlessness and bodiliness are very much different from the [41:00] culture of materials with Tatlin at this point was working with in his own sculpture and leaving such a strong impression on younger artists developing in Russia -- that is, the belief that materials and textures all have their own expressive values, that you can work with them to plumb those particular expressive depths.

Gabo in many senses is an antimaterialist artist. These are works which are weightless. They attempt to project beyond their physicality into greater scale. They deal with reflections, transmittal of energy and light, as opposed to that rugged solidity of the works by Tatlin and Rodchenko of the same period. And it is this refinement, this elegance, this accommodation of light and energy which remains very much a standard feature of Gabo's work throughout his later development in [42:00] the '20s and the '30s, and becomes, in its rather hard-edged, technological look, its sense of mathematical system, one of the primary influences on artists who fall in this general constructivist wake, such as Max Bill, the *Suspended Cube* sculpture from 1935, on the left, and more recently, American artist, [Candice?] Nelson on the right.

One of those elements of elegance, precision, weightlessness which is so important is Gabo's use of glass and plastic, and it can be said that he was an artist who, of all the artists of his

generation, understood the potential for the exploitation of these qualities better than anyone. Obviously, [as we have?] seen before, Archipenko had used glass at an earlier point, Tatlin had used it as early as [43:00] 1913 in his sculptures. I show you two works from the [teens?] -- one of the Stenberg brothers' spatial constructions on the left, utilizing glass planes and this open skeletal structure; and newly rediscovered work by an artist named [Dimschitz?], who was a friend and follower of Tatlin's, on the right, which is composed of planes of glass, which are painted on and work very much through the reflections, the reading from one plane back into space.

Gabo, however, took these devices and turned them into sculptures which are purely transparent, totally dealing with elements of transmitted light and energy, a development which has not really been very thoroughly studied, but which has to be understood in terms of the painting that was going on at the same time. Popova on the left, Malevich, artists who, in a painterly fashion, [44:00] were attempting to deal with a dematerialization of solids, planes which seemed to rotate, or bitten into by these softened images, softened edges of light so that you have a sense of transmission of energy, of light, encompassing and [biting?] into and rotating around these various forms.

The ultimate realization of this kind of concept was of course Gabo's *Kinetic Construction* of 1919, 1920. We have in the exhibition a reconstruction of that, a modern reconstruction, seen on the left, in its non-moving, non-vibrating form -- just a simple, very thin, metallic line in space. Gabo talked about in some of his reminiscences, working in material-starved Moscow in 1919, finding a place in a studio where he could work, looking for [45:00] a motor from an old doorbell that he was able to get some workmen to give to him -- able to put together these various mechanical parts, working with the weighting of that arm so that when it is turned on and vibrates in space, it is an equation directly of form with movement and energy, because the form of the sculpture is the virtual volume that is created by the image of that vibration, so that you have this wonderful arc-like form which appears to be almost solid, but which actually is nothing but vibration and energy.

This, however, was a development which was so progressive at the time that Gabo could not take it any farther. He had to retreat from this point. He could not build the kinds of mechanisms which hew as projecting in his drawings in terms of highly elaborate, complicated movements in motorized sculpture. [46:00] He was, however, probably the very first artist to work with this kind of kinetic breakthrough of a motorized structure.

Of all the art forms in Russia at the time, the one which has the most revolutionary imprint, impact, is that of architectural sculpture -- seen here in the very well known Tatlin *Monument to the Third International*, 1919, on the right -- sculptures which partake very much of, reference these wondrously modern morphologies, structures seen in conning towers, electrical broadcast stations, the new electrification programs that were at that point moving forward in Russia -- offering in these tower forms a strong heroic iconography [47:00] of forms reaching upward into space, this verticality, this sense of anti-gravitational projection upward. All of these elements grasped upon by artists who also liked the idea that there was actually a chance to build something, to produce forms which would take place in the real human environment, such as

[Klutsis's?] *Model for a Kiosk*, a news kiosk, on the left, and [Exter's?] [*Izvestia*?] *Kiosk*, something that actually was built at one of these Russian expositions at the time, on the right.

Gabo became very much involved in this kind of visionary, fantastic architectural exploration, and in a series of drawings which we have now -- recently come to light -- you can see a whole raft of works which, in this totally visionary fashion -- these are structures which are certainly unbuildable, but that [48:00] is beyond the point, because as they reach upward into space -- this very vibrant, strong geometric vocabulary, the point is that sort of revolutionary striving, that attempt to do something fantastic and new and to find at least some distant paths into works which could actually be built in the real environment. And they did, in fact, lead into a group of

PART 2

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-- [00:01] particularly cruel to Gabo, and very few of these structures have actually survived. The ones that I showed you, the *Monument to Physics*, the *Monument to Institute for an Observatory* exist at this point only in a very few scattered fragments. And this particular fountain, on the left, which is known only from this early photograph, is however, possibly resurrectable. It may possibly be reconstructable from this group of plastic and metal elements, which again, were found in Gabo's studio after his death. With a little bit of straightening out of some of these early plastic parts, Charles Wilson, the studio assistant, thinks that it is virtually all there and can perhaps be put back together.

A similar case with this very important tower structure from about 1922, '23. These are the elements which survive from it. [01:00] A more happy case, however, is with this tower fountain model from 1924, which has been fully put back together. It was missing only a couple of the planes of glass, which have been cut and fitted into all the surviving elements of metal and wood, newly repainted, so that it now is resurrected in this very beautiful tower, *Model for a Fountain*, you can see upstairs in the exhibition. And gives you finally a greater feeling for what Gabo was after at this particular moment. There are kinetic elements -- for instance, that pane of glass at the top, which seems to swing back and forth -- very probably an idea for another kinetic, motorized element in this sculpture -- the spiraling pathway which water would have come down as it fed into the lower basins, [02:00] ran over those basins into collecting pools. For the time, a highly inventive and quite beautiful fountain structure, fountain design.

Another success story -- the *Monument for an Airport*, this work on the right, which has been put back together with a couple of new panes of glass, and was seen by Gabo as a monument for an outdoor location at an airport. Very evocative of flight, velocity, motion, visualized by him on a giant scale, probably 20 feet or more in height. These are the pieces photographed in Gabo's studio on the left as they were found after his death.

And finally, another success story -- the *Construction in Space* [Soaring?] -- an early photograph on the left, and the way it now has been put back together, fortunately all of these parts except for the two [03:00] plexiglass cones on the right.

So through these discoveries, these resurrections from the past, we are able now to fill in a very large gap in Gabo's oeuvre, and to see him working with a series of ideas, looking for metaphors of velocity, of movement, of power -- working with designs which would stretch out of the studio into the actual built, physical environment. This was an ambition which he had throughout his life, which is traceable in several other project designs, such as this very visionary staircase made of a glass kind of relief structure on the left, an actual architectural model on the right, Gabo's design for the *Palace of the Soviets* -- 1931 Architectural International Competition. [04:00] Something that was actually built, his glass and plastic stage set for Diaghilev's ballet, *La Chatte*, 1927, done for the Monte-Carlo Ballet Company.

And I show you a drawing for the kind of fountain which he was constantly designing in life, going back to, with the hope of being able to realize, being able to get a commission to work out of doors. Finally, in one instance, he was given that commission by the Tate Gallery. The great Tate Fountain, which is installed along the banks of the Thames River, across from the Tate Gallery, spewing out from the surface edges of the fountain, these very fine lines of spray, which mechanically turn the fountain so that it catches, reflects the light in a highly dynamic, very sensuous way. The lines of spray then suggesting the linear stringing of his sculptures done in plastic. [05:00] Or the *Monument for the Unknown Political Prisoner*, which was done as part of the International Competition, 1954 -- Gabo's submission for which he won one of the second prizes.

This was a dream which Gabo never stopped dreaming, which remained important to him throughout his life, and really the point is that his faith in the high purposes of art never faltered, even in Russia when he was attacked by other members of the constructivist, so-called productivist circles. He always held out for the spiritual values in art, [even though?] believing that they can make a difference in the designed, built environment. His ambition to leave a mark on human life and consciousness never failed. His faithfulness to constructive principles, as articulated very early in life [06:00] in the *Realist Manifesto* of 1920, remained firm throughout his long development.

The continuing relevance of ideas such as these, the fact that we need artists of this kind of conviction was very strongly driven home quite recently by a tragic event here in the United States. It is a somewhat bitter irony that the very last sculpture that Gabo was working on at the time of his death, a monument which he, again, projected visually, mentally, onto a giant scale of 20 or 30 feet, an outer metal rim which held in its inner core this revolving, mesh-like, circulating pattern driven by the wind -- this was a monument that Gabo entitled *Monument to the Astronauts*. And I think a fabulous idea if this were able to be realized someplace in the United States [07:00] at this particular time.

So, thank you. I leave you with that one thought.

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9009367_01-Naum-Gabo-Rediscovered-Revelations-on-a-Constructivist-Pioneer-1-of-2.mp3 9009368_01-Naum-Gabo-Rediscovered-Revelations-on-a-Constructivist-Pioneer-2-of-2.mp3

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