PROJECTION DESIGN FOR A CONTEMPORARY DANCE WORK BY IVÁN ANGELUS IN HUNGARY

Tennessee Dixon

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PROJECTION DESIGN FOR A
CONTEMPORARY DANCE WORK BY
IVÁN ANGELUS IN HUNGARY

by

Tennessee Dixon

A thesis submitted in partial fulfillment of the requirements for the
degree of Master of Fine Arts at Virginia Commonwealth University

2011

Chairperson of the Supervisory Committee:

Ron Keller
Head of Design, Professor, Department of Theatre
The purpose of this thesis is to document and analyze my projection design for a new dance piece, "Vű", directed by Angelus Iván and staged at Trafó in Budapest, Hungary. Included is an account of the design process, the concept and projection development described scene by scene, execution, performance and evaluation. The paper ends with reflections on the relatively new field of image projections, and my professional goals in scenic design.
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Photographs of performance by
Imre Kővágó Nagy
Zsófia Hevér
Tennessee Dixon
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INTRODUCTION

It is spring 2011. I have been in Budapest since September 2010 as a Fulbright Fellow, specifically, to create image projections for contemporary dance, and generally, to investigate inter-disciplinary theatre in Hungary and foster critical thinking in the area of projected imagery for performance. Four months in the fall were spent solely working with Hungarian choreographer Iván Angelus developing a new work of dance and image projection.

I was introduced to Iván Angelus years ago on the street near the Lágymányosi Közösségi Ház, where he and his students were preparing a dance performance in Mu Színház. This particular performance was a series of humorous, tender and evocative dances, simply presented. Watching the dance was like the experience of reading. I thought it would be interesting to work with him some day. Six years later during the Fulbright application process, I contacted Iván, explaining my intentions of coming to Hungary, and asked if he was open to collaboration. He bravely said yes. I learned later that he doesn’t usually work with people he does not know. The dance was developed in the Goli Tánchelya facilities in Budapest, with the students of the Budapest Contemporary Dance Academy. VÚ, as it came to be called, was presented at Trafó Kortárs Művészet Haza, a contemporary performance center in Budapest.

The design for this dance emerged from daily experiments and discussions. Drafts and plans are minimal because they were not the means by which things were made. The design and the execution were intertwined; decisions were made through the physical experiences and creative dialogue. I describe the attributes of each scene as a means of explaining the process with some detail.
ABOUT IVÁN ANGELUS

Dr. Iván Angelus has developed contemporary dance in Hungary for thirty years. With a PhD. in education, he is a choreographer, dramaturge, director and teacher, involved with many projects, people and institutions in Hungary. He is the founder and director of the Goli Táncélya (Goli Dance Place) complex, a workspace of 1552 square meters, which houses professional and basic dance schools, The New Performing Arts Foundation, studios, offices, dorms, music rooms and other dance and music resources. Angelus is rector of the Budapest Kortárstánc Főiskola (Budapest Contemporary Dance Academy), offering majors in dance, choreography and pedagogy.

Red Room is one of seven dance studios.

The Goli factory building prior to renovation. Photo by: ?
THE PROJECT BEGINS

Prior to my departure to Hungary, I received an email from Iván Angelus with a three item list for me to consider.

"a. In memoriam Loie Fuller

b. Homage a Alvin Nikolais

c. 2+3 dimensions simultan"

I read articles and studied video clips of dances and interviews of Loie Fuller and Alwin Nikolais. Although these two choreographers were not contemporaries, Fuller and Nikolais share common ground. Both were Americans revered in France. Both used props and costume as an extension of the body, and made use of color and light on stage as elements of choreography. Both embraced technology and used such things as optical, sonic, chemical, and material innovations in their works. Loie Fuller is recognized for her technique of choreography with flowing costumes. Fuller and her billowing veils made a big impression on turn-of-the-20th-century art. She would illuminate the fabrics with colorful lighting, and transferred this idea to film.

Alwin Nikolais' dance “Discs,” shows his use of body extensions. Large colored aluminum discs on one foot, serve in various aesthetic capacities. My research (Appendix B pp 52-58) led me to consider the projected image as an extension of the body, and applying graphic patterns across the entire stage.
My first meeting with Iván was at Goli Tánchelya in September, 2010. Over tea, we
discussed the parameters of the work to come in the next four months. It was unknown how
the project would unfold, but the premise of the dance was to be the dynamic between
graphic/optical effects and the dancers in 3-dimensional space. He asked me to describe the
capabilities of the software and my skills. We talked about the three subjects on his list. Iván
wanted to include: live cameras, live image processing, overlay of visual movement with actor
movement, effects that paint the actors, images moving to the dance rhythm. He said he
wanted human scale and framed imagery. He did not want automation on stage; instead the
inclusion of the technical elements was to be explicit and handled by dancers on stage. We
discussed how the graphic elements could be integrated with the choreography. One thing
Iván was adamant about was not letting the visual media overpower the dance. He said he
wanted visuals that would not be noticed, and then he laughed.

Iván asked me to observe dance classes and become familiar with his methods, movements,
and thinking. I spent a week observing classes and getting accustomed to the working
environment. The Goli Tánchelya facilities include seven dance spaces, dressing rooms,
music rehearsal rooms, class rooms, a school-wide sound system and digital audio archive,
video cameras, projectors, audio/video editing station, Fresnel and Par Can lights, mount
armature, and other equipment. There were numerous instructors and classes such as folk
dance, modern technique, contemporary dance, contact, ballet, improvisation, composition,
and dance history. I met many of the people who would somehow be associated with the
dance. Iván and some students spoke English. Most of the staff, including the two
technicians, spoke little or none. Others involved included Zoltán Farkas - the consultant for
folk dance, Zoltán Mizsei - sound design, and Orsolya Pete - lighting design. The recent work of Hungarian fashion designer Anikó Németh was borrowed. One Loie Fuller styled flowing winged garment was made. HGEvent, an event planning company specializing in supplying audio video systems for large events, would supply and install the projectors for the show and arrange the construction of the screens, dollies, mounts and masks for the projectors.

The new piece officially began when Iván gave instructions to his students to create compositions involving imagery and optical effects. There were about twenty-five students involved in this process. Each week for two months students would present a one- to five-minute dance composition in progress which used some optical/visual effect. Many and varied dance ideas were presented, and all were followed by lengthy explanation, cajoling and criticism by the group. A teacher would be present to guide the discussion - Iván, Tamás Bakó, Adrienn Hód, Viktória Varga. A student or Iván would translate some of the discussion for me, otherwise I learned by observation. Every day I took notes and made sketches of what was happening. (Appendix A pp. 50-51)

In these weeks I researched pictures, scenic ideas and technical issues. I recorded and edited video and tried out various animation effects. I carried my Casio EX-F1 around to capture textures and locations. This camera records still images, standard and high speed video up to 600 FPS. I created preliminary visuals for the ideas in progress. Some students created initial imagery on their own; others asked me for help from the beginning. There was little formality to the director's management concerning the design issues. There was no schedule for production meetings and no production notes in circulation. I did meet with Iván almost daily, usually one on one. We often meet after the weekly presentations to discuss the
topics that emerged from the students work and brainstorm about how these disparate things correlated. We would talk conceptually and I would show my ideas on a laptop. I would occasionally be called in to meet with other designers.

All parts of this dance, the choreography, the projections and set elements, were created as we went along. Much of it was intentional, but also, something interesting might happen serendipitously in the studio, some combination of image, sound, dance or dramatic effect, which would then be incorporated into the work or send a section in a new direction. Iván would send me or the dancers away at the end of the day with criticism and directives and expect us to return the next day or the following week to show our progress or present new concepts. My strategy was to assemble many choices for each scene and have them available to test along with the dancers in the studio. Iván knew what hit the mark when he saw it.

The concept/discussion phase was continuing without resolve. Little of the design was definitive, and time for execution was starting to diminish. As a means of encouraging the director to commit to images and concepts, I put together a mise-en-scène multimedia presentation with multiple variations, including figures, video to scale, lighting ideas and stage architecture. This gave him visual ideas in a set order and showed what I had understood about our many discussions, involving the essential issues of scale, placement on stage and
color. Speaking about an idea can be significantly different then seeing the idea depicted with specifics. This exercise cleared up many assumptions and was very fruitful for pin pointing details. He asked me to show this to others as a reference to further discussion. A week later he told me he did not want to see images shown to scale in the little theatre setting - full screen from now on. I drafted plans and equipment schedules, but these were ignored for the most part. He wanted me to know the information, but had no interest in personally looking at or deciding anything from a plan or list. For me these plans organized the interrelated details involving imagery and equipment and prepared me to reason with him in rehearsal.

On occasion Iván would bring in a book or point to a video on-line. One picture he showed me was a mezzotint of waves in a book of M.C. Escher prints. In response I created a slow motion loop made with edited video of ocean waves with an animated grainy effect simulating the stippling in Escher's print. Unlike the Escher print, my waves were mid-sea and needed to have an overall lighter value because it would be used in conjunction with dark flames.

The choreography was continually shaped and reshaped by the increased inclusion of light,
cameras and projected visuals. At the same time, my projections were informed by the
developing dance ideas. Eventually Iván chose which student dance pieces that would be in
the show and proceeded to aggressively direct them, sometimes reshaping them entirely.

THE NEW DANCE GETS A NAME

The dance piece that developed was called VŰ. It consisted of ten individual dance ideas
woven into one composition. Iván and I made drawings on note cards to storyboard the show
and we began to work out the blocking and stage design step by step. The attention was to
rotate between dancer and media, and go back and forth between revealing the stage
mechanics to increasing the illusion of the scene, reminiscent of Brecht’s epic theatre.

It was my task to generate a motion graphic response for each dance segment and each

The beginning of rehearsals at Goli dance studio.

transition. I was also responsible for the design of the projection system, blocking for the
projection equipment on stage, and the technical and logistical solutions throughout
production. I created digital scenic imagery, animation and video, and programmed image
behaviors. I used archival footage, slow motion video, satellite images, found and recorded
footage, and elemental imagery such as snow, waves, fire and stone.

Image scale was an important issue, and the solution fluctuated for weeks. At the beginning we discussed large imagery across the back wall and on a scrim, but this was dropped in favor of frames with human scale life-size images. Life-size became the rule, but this rule was broken many times. We needed to resolve where images would appear, on what surface, and how three projectors could be focused in many directions. We decided that rolling screens and rolling projectors would accommodate the varied image needs and a good way of folding one vastly different scene into another. Two screens, the floor and a ball would be used for projections. One screen would have a 3:4 ratio, and the other a narrow vertical that could contain a standing figure. The final screen dimensions were 12x9m and 1x9m, a size easy to maneuver on stage, and a height needed to accommodate the tallest dancer with arms stretched overhead. The design called for front/rear projection screen material. Neutral grey was my choice in these circumstances, in order to have deep blacks and avoid white rectangles on stage catching unwanted light. Two live cameras were used as way of accomplishing simultaneous views and in part add a voyeuristic dimension, being that the dance piece was about ‘VÛ-ing’.

Projection issues affected the blocking and order of the scenes. Movement of the stage elements by the dancers, including the rolling screens, cameras and projectors, happened every few minutes. The staging needed to coordinate all the activity without casting unwanted shadows, silhouettes or camera shots. Shadows and projection edges were always a consideration - should we incorporate them or diminish them. Exits and entries were organized so that dancers would not pass in front of a camera or through the area between the
projectors and screens which took up significant stage real-estate. Rear or front projection was a question for the staging and programming. In one of the basement rooms of Goli was a scaled lighting model table. I created 1:10 scaled screens and set up cameras and small projectors for a while. This gave me a better sense of the screen size and placement in relation to the space, but proved not useful for testing projected images, because the effects needed to be seen actual size, along with the dancers.

EXECUTION

The boundary separating design and execution in this project is blurry. For the sake of clarity I will define execution beginning when the order of the dances was set and we began to have preliminary tech rehearsals in the dance studios. We set up the cameras and the small projectors using the walls as screens. I was very glad to get to this phase because I knew that once Iván saw the large-scale images in space with everyone he would start to request new material. It was three weeks before the trial run-through, and four weeks before the performance opened at Trafó. At this point everyone involved in the production felt increased pressurize, including me. Iván was pinning down transitions and timing, and pushing all of us to make changes on queue. A particular element might not be finished, but as long as it was in time and the gist of it was correct he accepted it, otherwise it was thrown out. If a dance move or any aspect of the presentation was executed without conviction the person responsible was severely reprimanded. My equipment was set up and taken down completely each day, which was time consuming and put a strain on the touchy hardware connections. Twice equipment issues caused brief delays to the start of rehearsals. Any hold-up, whether for a minute or an
hour, was the same infraction against the austere on-time policy.

Two weeks before loading in at the theatre we received the final rolling projection screens and large rolling projectors. The students had to learn to move these large elements smoothly and use the with manual projector shutters. Timing issues and also modifying the choreography to work with these stage elements took up much of rehearsal time from then on. The imagery was affected in many ways. Pictures were altered to fit with new dance movements and transitions. When for example, if the direction of a dancer's entry or exit was changed the video picture would have to be flipped or the angle shifted. I altered the tempo and length of animations. I programmed new controls such as min-max parameters, interactivity and safety features (options to be used "just in case"). Performers had to adjust as well. The dance transformed when the visuals were in place and the dancers encountered multiple images on stage with them. The location for some dance moves became very strict - sometimes inches mattered. Up until this point the piece began with three musicians playing instruments: a violin, an accordion and a flute. Iván concluded that the group of three was no longer balanced in the context of the stage activity, so even though they had practiced as a trio for months, only the flutist remained. With the screens moving smoothly and the effects between the camera and projected images were well practiced, the piece began to coalesce.

TECH AND SET ISSUES

VŨ had 2 custom-built mobile screens [3x4m and 3x1m] with grey rear/front screen material, 2 Hitachi projectors on custom dollies, 1 ceiling mounted Panasonic projector, 1 fixed monitor, 2 consumer grade video cameras on tripods, one wireless mini camera, and 2
Windows XP computers: an Acer Aspire laptop running the software program Isadora, and a Toshiba laptop running Adobe Director. A Matrox multi-monitor adapter distributed three separate digital signals out to the three projectors. 2 RCA-USB Dazzle input adapters and 1 wireless receiver were used to capture live video. Many meters of cabling ran up the sides and across the floor of the stage. The mini wireless camera was not used in the end because there was too much interference from other audio/visual equipment at Trafó.

The screen frames had to be solid stand-alone rolling structures, light and easy to roll but sturdy enough not to torque when moved around. They needed to take as little floor space as possible, have a tiny gap from frame to floor, and finally, break down into manageably-size packages. This was accomplished with a frame design consisting of 50x50x3mm structural steel angles, welded corners, bottom corners with a diagonal brace off the back which supported 2 smart casters and held a 10k weight on the top side, and frame bars secured at corners with brackets locked with an Allen-bolt. The screen material snapped on to the front surface every 20cm. When the projection company came one morning to discuss the projection needs, I made a quick sketch on the spot to explain my idea of its design, and that was the last I heard until the screens arrived. The sketch is gone, but the frames were well built and consisted of all the things discussed.

I used Troika Tronix's Isadora and Adobe Director to display and animate imagery. Isadora (Appendix A p. 49) is a graphic programming environment that provides interactive
control over digital media, with emphasis the real-time manipulation of digital video used by artists, video designers, scenographers and VJs. Adobe Director (Appendix A p. 48), previously Macromedia Director, is a robust multimedia authoring tool used to create and publish interactive media including: CD-ROMs, kiosks, simulations, games, elearning environments and RIAs. Isadora enables many aspects of the image to be changed on the spot as the director requests it. Director, on the other hand, does not easily accommodate onsite alterations (without extensive programming) but is capable of elaborate behaviors and animation. I built programs in each to cater to onsite changes, including simple adjustments to HSL (hue, saturation, lightness), cropping, speed, timing, as well as complex changes to the animation and behaviors.

Troubleshooting was integral to the process from start to finish. Besides the touchy Matrox adapter, the most frequent weak links were our cables and video capture system. The continuous set up and break down of the equipment created issues. The cabling kept changing, which made me very uncomfortable, but I had to accommodate myself toward my host's working habits. The system had been stable during the short rehearsals, but when the rehearsals got longer and the set up was more rushed, the Acer laptop began to crash. It was three days before the first load-in at Trafó and we were nervous about this. As I suspected, it was the USB hub being used to provide an extra port for a mouse. After removing this device the machine stabilized, but as a consequence I had to adjust to the touch pad and re-learn all my live action movements. I had a backup laptop ready to replace the Acer. There was no backup ready for the Toshiba laptop because of budget considerations, but Iván was OK with this. Though the two Hitachi projectors were matching models, the image quality was not the
same. One was significantly more yellow because the bulb life was almost used up. The bulb would not be replaced because it was a short run and HGEvent planned to retire both projectors shortly. The size and quality of these projectors was good for the rugged treatment they would endure. Color correction was done through software. The backup projector was a different make.

AT TRAFÓ

One week prior to the first public showing, we loaded in and out of Trafó for a trial load-in and full-day tech rehearsal without lighting. Trafó is a contemporary art center that houses a 250 seat theatre with a 20x20m stage area. It is a busy, well attended venue for independent national and international performing arts groups. Every night is booked with some configuration of dance, theatre, music, visual arts and talks. Events are often followed by Q&A with the artists. Trafó has a cafe-bar and in the basement an art gallery, and a club.
The system for the projectors and cameras was installed by two technicians from HGEvent. One of them, Victor, spoke English and there were no communication snags. We were up and running without delay. It was this day that Iván decided on all the elements in a set order.

In the one week remaining before the show opened, there was considerable video editing and fine tuning for me to do. We were supposed to have only run-through rehearsals, but instead it was stop and start with changes as usual. It has been my experience with dance productions that changes are made very close to show-time, so this was no exception. I would not make changes to the media at this point, but adjustments to playback were OK.

The show ran two nights, December 20-21, plus a semi-public dress rehearsal. We loaded-
in Sunday night. Monday morning HGEvent did another terrific job installing the projection equipment. Focus was mid-morning and by early afternoon we went straight into two run-throughs of the show. Dress rehearsal that evening was open to invited guests and press.

This day was the first time I saw my projections in full lighting. The colors and shapes of the lighting design were far more prominent than expected and I hurried to adjust all my images in every scene. The lighting designer, Orsi, did not adjust to my appeals. She did not seem willing to accept suggestions/direction from me, only from Iván. They had worked together for years. The bigger issue was she apparently did not perceive what I was seeing, and so did not apprehend the problems. Beyond having to adjust my images to new colors and brightness levels, the lighting made it hard to mask out the dancers in the final folk dance scene, so unfortunately, the effect was not as good as it could have been. In the Tükör scenes the intense down lights made the shadows on the dancers the prominent feature and their bodies were visually lost in the dark background and more so in the video. To diminish this problem I altered the video levels but consequently contrast was lost. Lighting had been discussed between Iván and I with some specificity, throughout the development process, but I had not met with Orsi to review each scene; in fact I had few formal meetings with anyone but the director. Iván disseminated the design issues to the others involved, and for the most part this was effective, but not in this case. There were specific lighting needs due to the live cameras and projectors; also an aesthetic sensibility and a color palette had which had organically developed over the months in my images had become resolute. I am glad to report that I had prepared my programs well to make these significant adjustments in the heat of the moment; on the other hand, it was errant on my part for not arranging a meeting with the
lighting designer in the first place.

As a projection operator, I used the keyboard and mouse to activate images, control the transitions from one scene to the next and go to black. I was also animating images in sync with the dancers and the music. Operating the projections was tricky because things changed during every run-through and I did not get a chance to settle into the show. I did not always understand that a change had taken place because these were verbal instructions in Hungarian. An expected light or dance queue might be suddenly moved or removed and I had to find another queue quickly.

It was during rehearsals, on the day the show would be opening, when I had to make the final but extensive adjustments to my program, due to the lighting issues and last minute changes in the dance. As a result, I made queuing mistakes all day, which made Iván nervous, understandably. I explained that I had adjustments to make in every scene and so errors were to be expected. He did not accept this as the real problem, but instead decided that I was an unreliable operator. It was not the time to defend or explain the problem. It was however, the time to say something to help ease his worries. I should have voiced solutions and reassurance, instead I was struck quiet by frustration about what I thought was an incorrect assessment, and confusion about how things would play out from that point on. In the end, only a few mistakes of little consequence were made during the performances.
We’ve been unable to see what is for some time now – a working capable of seeing what are want to see, the way we want to see the world around us. We convert the viewed color in the color we know and the viewed shape to the shape we know. However, we keep encountering people who are capable of constantly reminding us of this. We must see, impress, inspire, prophesy, and promise artists who see things to face and not through a glass, darkly and who dare to view things the way they are.

My favorite works – Mirror (1992), I’m Happy (1984), Final Sec (1989). Remembering the Future (2008) – and many of my other theatrical works examined this subject. I’ll tell you straight up: the most difficult part is the powerful visual look of the dancer. Or perhaps the error way around: Still, with the right balance, there can reinforce each other. We aren’t the only ones who started this, but rather the great figures of modern dance. László Fulop, the first dancer, Alvin Nikolau, the adorer of scenery, and many others came before us. Our show is a homage to their work.
SCENE BY SCENE

As audience members enter, they hear a flute playing the ‘Second Waltz’ by Dmitri Shostakovich, and see a slow-moving close aerial view of Budapest traveling a path from Goli to Trafő projected onto the larger screen. A dancer, representing a homeless person, is playing her flute. Once the dancing starts she sits in a blanket on the floor the entire show.

The aerial view of Budapest, featured in three scenes, evolved out of slow motion videos I recorded of pavement and wall textures around Budapest. Iván liked the sensation in these videos which felt like seeing through the eyes of a person observing, exploring and thinking.

The aerial view of Budapest video was made by capturing the screen image while, in Google Earth, I slowly zoomed and rotated through the streets of the city. It was difficult to get twenty minutes of a smooth uninterrupted motion. I had to redo the recording many times to achieve the sensation Iván liked in my original videos: the quality of moving through the streets of the city through the eyes of someone exploring and considering what they are seeing.

Scene One: 'Manier' (Manier)

The first scene created a very interesting spatial effect. Resembling a fashion show, dancers walk slowly downstage toward a live video camera, each carrying a special object which they held in front of the lens for a close-up camera shot. The objects included a fish tank, a pineapple, a clock, a hamster, a balloon and other things. There were three or four dancers on stage at one time; each crossed the stage four times and left their object in front of
the homeless person before they exited. There were two cameras and three projections of their
movements. We experimented with placement of the cameras and screen, and I tried
zooming, blurring, colorizing and other image treatments. Ultimately we settled on three
views: real-time shot from upstage, delayed 5 seconds shot from downstage, another
downstage view with no delay and inset into the upstage camera angle projection. Visually
there were multifarious dancers crossing back and forth in time with the waltz.

My choice was to de-saturate the image color to about 10%, so that it would read as black
and white. I added a warm, slightly greenish, tint (not reflected in the photo) that was very
pleasing alongside the subtle colors of the fabrics of their outfits. The projected imagery
throughout the show was de-saturated to some degree between 0-50% with a mellow tint
added for warmth, which created an elegant and soothing color scheme.

Intermittently one of the two dancers, Lilla Emődi or Nikolett Pelles, dressed in the Fuller-
like flowing winged garment, would enter the stage to usher in a scene change. To transition
into the next scene the Fuller character comes through intermingling with the actors and
swirling and sweeping away the fashion show, while the screens are rotated and a new dancer
is escorted in and the scene dissolves into the next dance.

Scene Two: 'Plastic Skirt'

Downstage, a stationary dancer wears a .0005 mils plastic sheet draped from the waist and extending onto the floor in a radius of one meter or so. He resembles a sea anemone in the waves, dancing in front of night time snow flurries with a recording of Antonio Vivaldi concerto in F-major. The falling snow starts blue and slowly transitions to yellow by the end of the dance. Vivaldi's music provides a delicate tinkling soundscape for the beautiful and eerie scene. By chance I had gone to see a concert in my neighborhood of this very piece of music. The next day he asked me about performances I had been seeing, and I mentioned the concert of Vivaldi's "Four
Seasons". This answered startled him because he had just selected it for the show and a CD was resting on his desk. This sort of thing happened between us now and again.

The movements in this scene changed little from its inception, but the context changed considerably from Nikolett Pelles' initial showing months earlier. My snow imagery went through many renditions. At first I used some found video footage of snow flurries at night, which the director liked, but he wanted the snow flakes life-size and falling at varying speeds on separate screens. I generated snow flurries in After Effects that could fall at different speeds. Reviewing this version, he decided the speed was not the issue, but the snow should be life-size. It was snowing by this time so I recorded my own snow falling at night to get life-size flakes, but the movement of the flakes was different than in the original found footage, which displeased him. I edited the video to take on some of the movement in the original. The dimensions of the projection image grew, so that the snowflakes on my new video were no longer life-size. At this point it was late in production and he had to make do with larger-than-life flakes. From my point of view, at the back of the house, the larger flakes read as life size, but from where he was usually positioned they were too large.

**Scene Three: 'Tükör 1' (Mirror 1)**

Beatrix Csák's choreography went through many meliorations in the development process. The idea for having live video to enhance the mirroring effect came out of the group discussions. In the end Bea's piece was split into two sections. The first half of this dance
consists of three dancers, side by side on a line, mirroring each other's movements in intricate ways. There is no video seen at this time. The dancers remain on a line inside a white rectangle of light except to, now and then, switch positions.

It was a peaceful scene with silence at first and later a recording of Antonio Vivaldi’s G minor Concerto, Op 8-3. We made numerous attempts to project images onto the floor as a means of defining an area for the dancers. Brightly colored rectangles, stained glass and an Oriental rug were some of many ideas that were tried and rejected. Finally, simple white rectangles of light were chosen and did the job marvelously. The second part of the dance returns later in the show.

**Scene Four: 'Közösség 1' (Community 1)**

Patrik Kelemen made a piece about group dynamics which appeared on two occasions. His choreography took place over an aerial view of Budapest projected on the floor which moved counterpoint to the action of the group.
In effect the map was moving under them as they traveled about the stage. I pieced together about thirty map images to make a large aerial image file of Budapest, and wrote code that let the image move and change via mouse action. In a stylized way, the ground was moving and blurring under the dancers, which emphasized distance and the speed they were traveling. I created algorithms for moving the image so that the starts and stops and turns appeared fluid and reflected the particular momentum of the action in the choreography. The motion effect worked nicely. It would have been better if it had been a full stage floor projection. The projector was mounted on a fly grid that was hung lower than I anticipated, so the map area on the floor was about 20% smaller than I had wanted.

**Scene Five: 'A B C''**

This solo dance, choreographed and performed by Petra Drávucz, was performed on top of the Google map at rest. The lighting designer later focused three color saturated geometric shapes on top of the projections.

**Scene Six: 'Széles Szinpad' (Wide Stage)**

In this dance, by Csaba Szentinek, the two screens were arranged on stage to create a proscenium view with 4m of space between. The dancers moved in a 2D fashion, stage left and stage right, and then on occasion would cross out of bounds. A still scene of the ocean waves changed on queue into a slow motion close up shot of a waterfall.
Scene Seven: 'Patrik Feje' (Patrik's Head)

Fanni Dolinsky created a video tape for her dance concerning verbal abuse and drinking. It was a five minute talking head of a young man berating his girlfriend. The video was the only part of her original dance composition that was kept. I proposed to project the talking head on the large yellow ball that I had noticed in one of the studios. The yellow ball worked well to exaggerate the qualities of the egotistical and sarcastic character as he subjected two women to his critical rants. The effect was heightened because the ball was rolled on to the stage by two young dancers happily playing children's games, for it to turn into a wicked thing made his character creepier. I distorted the face slightly to wrap around the ball and accentuate his nose, 'like a fox' said Iván. The image edge was soft and round from a mask placed in front of the projector lens. It was the dancers' job to move the ball in line with the stationary projector.
Scene Eight: 'Tükör 2' (Mirror 2)

The three dancers step on stage again, moving out from the dark upstage in to their three rectangles of light. The dance resumes, but instead of Vivaldi there is a recording of Nina Simone singing, "Love Me or Leave Me". After some minutes a 3x1m screen is rolled in and placed in between two dancers. On it live video of one of the dancers appears, flipped. In effect it is a fourth dancer that, in accord with the others, is mirroring the movement of one or more of her fellow dancers. The video eventually changes to show two vertical halves of the dancer's body mirrored, and the three dancers line up, one behind the other facing the camera, as bluish kaleidoscope-like movements animate on the screen. The video feedback between projector and camera created an infinite mirroring. It was a beautiful pattern with great depth of field. It required the dancers to place themselves and move with precision. We hung a
video monitor above the audience which allowed the dancers to check their placement.

**Scene Nine: 'E lucievan le stella'**

The title refers to the romanza of Mario Cavaradossi in the third act of Verdi's 'Tosca'. In this shadow dance a 3x4m screen received projections from both sides. The silhouette of the dancer behind the screen filled in with dark flames projected from the front, which was surrounded by waves of water projected from the rear. Another dancer entered the frame, in the Fuller outfit. Her large silhouette slowly enveloped him. Eventually she moved in front of the screen and had fire projected on the fullness of her cloth.

This scene was an amalgam of numerous ideas that had surfaced in the process. Sándor Petrovics developed a solo which was combined with a silhouette dance of tangrams by Nóra Horváth. The front and rear projection effect was something Iván had used years ago and wanted to revive it with more powerful imagery and equipment. Fire and water had become a theme in "VŰ" and visually present in many scenes. For this scene my task was to create a video of flames and another of water that would fill the entire screen. The
flames had to be intense but consistently dark so it would remain in high contrast to the light value water scene. I found a very short bit of footage from a grease fire explosion that I successfully edited to a three minute loop. This video loop, as with all the others, was to have no recognizable repeat.

Scene Ten: 'Közösség 2' (Community 2)

Patrik's group returns and dances on the animated aerial view of Budapest.

Scene Eleven: 'Sanyi-Bea Duett'

In this piece the video and the dance were developed autonomously and combined later on under Iván's direction. The choreography, by Alexandra Bódi, took a turn in concept and form when video of the dancers was inserted. Creating these videos was one of the most time-consuming efforts for me in the project. I set up a recording session with two dancers to shoot high speed video of isolated dance moves. We concentrated on high jumps. Sanyi was very obliging and repeated strenuous jumps dozens of times so I could capture good footage. I was going to key out the background in order to animate the figure, so lighting was important. A green screen studio would have made my After Effects work easier, but that was not available. Instead I used lamps to cast a wash of light across the whitest biggest wall in the studio and
kept the dancers overall value quite dark. I experimented with distortion and time-mapping effects. The time-mapping on top of the distortion filters was exacting. The rhythm of the jump was under great scrutiny by a room full of dancers. A slight adjustment on my part to one keypoint could result in an unacceptable change in the shape of the distorted movement.

This finished video appeared in the dance on the large screen three times for less than 20 seconds each instance. For the rest of the duet, ocean waves were projected. On queue with the music, Sanyi would move behind the screen and I would activate the video. As he disappeared a video of him appeared in the waves and continued his action, his partner Bea would then relate to the projected image of him on screen. The on-screen dancer entered a supernatural state wherein the dance move might slow down or his body become exaggerated or distorted. As the video dancer exited the frame Sanyi tumbled out from behind the screen and the duet continued. When seeing the video with the duet in rehearsals Iván selected the music from Giacomo Puccini’s 'Tosca' - 'E lucevan le stelle' sung by Luciano Pavarotti, which added a melodramatic aspect to the otherwise sensual and a playfully bellicose dance.
Scene Twelve: 'Agrár' (Agriculture)

Hungarian folk dance was brought into the dance in the last scene. Archival footage of a man dancing Cigány Csardas, was projected on the small screen and live dancers gathered on stage doing the same steps as the dancer on film, all dancing to the percussive and melodious sounds of Muzsikás együttes playing music of Kalotaszegi (legényes). The Csardas is a 200-year-old folk dance that is experiencing a revival. A revival movement of folk dancing in the '60s fueled gatherings at the tanchaz (dance house) for fun and for preservation purposes all over Hungary. The Csardas is considered the national dance of Hungary, comparable to the Tango of Argentina.

Iván had access to a research library of folk dance film documentation archived on DVD. The particular segment that was selected for the show was a solo dancer demonstrating steps in winter landscape. It was a lossy and low resolution video. The dancer in the film was
roving about the snowy ground in a 3:4 format video image at different distances from the camera. In the editing process I had to keep his body centered in the video with a 3:1 format and keep him the same size. This required, at times, a frame by frame scaling and positioning of the video. I edited this into a four minute loop that was projected human-size on stage. I created another video loop of the snowy landscape without the man. In the performance, the dancers on stage were videoed and superimposed into this landscape appearing as if they were dancing in the same place as the man on the film. In the performance I overlaid distressed film footage and video compression artifacts so the live footage would blend into the recorded scene. A second folk dance was selected and this process was repeated.

One intention of including folk dance in this contemporary piece was to reclaim it, under the premise that folk dance is being co-opted into the current nationalistic identity. Its inclusion is not an overt political statement, but a genuine expression of the joy, the sensuality, and the home-grown spirit of the dance.

**Ending - 'Fullerek' (Fuller Torrent)**

More dancers come to folk dance onstage and it turns into a party. The screens are moved to the back clearing the stage and soon all the dancers make their way back to the stage each doing moves from earlier in the show. Music of Kalotaszegi (legényes) and Nicolas Guta continue and the night wraps up in a circusy ending.

Iván ’s statement in the program translated:

"A dance performance - of course - no drama and no social philosophy lesson. The dance and the visual tools of the stage looking for honesty, authentic ways of communicating.
Gesture and visual language experiments show the results of the Budapest Dance School community - traditionally a bustling pre-Christmas days (the work of our species affecting a cultural and educational upheaval). The evening is an oasis, offering shelter."

Iván ’s statement in the program:


VÜ was nominated for a Lábán Rudolf award for innovative dance of Budapest in 2010. The award was established in 2005 by Trafó and MU Színhaz to recognize those who excel in the field of contemporary dance in Hungary. The jury consists of renowned journalists, dance critics and theoreticians. The laureates are given a sum of money. Nominees are picked from Hungarian dance premieres presented throughout the given year. Six pieces out of over 100 new works were nominated in 2010.

Rudolf Lábán (1878-1958) was an innovator of modern dance in Europe. Lábán set up a model dance theater and invented a system of dance notation known as Lábánnotation or Kinetography. Through his work, Lábán raised the status of dance as an art form, and transformed the nature of dance scholarship. His theories are applied in diverse fields, such as cultural studies, leadership development and non-verbal communication.
EVALUATION

Reflections on the show:

The performance at Trafó was unusual. It presented a series of ideas, something like a record album, where the individual parts relate to each other because they are carefully ordered and conceived in the same time span. The parts melded together into an interesting statement concerning what was on the minds of the eighteen to thirty year old students, Iván’s vision and leadership drawing on thirty years of dance, and my visual aesthetic and work with motion graphics and functional compositions. It was a tasteful and intellectual study of dynamic imagery, movement and music. The dance has the qualities of an easy going serendipitous experience but also contained many formal elements. The imagery brought in a dimension that would not have existed any other way. Some very interesting visual-dance conjunctions occurred, which I plan to explore further.

Reflections on the process:

The atmosphere throughout production was high energy and in flux. At school there was a sense of urgency most of the time. A weekly schedule posted on the wall was subject to last minute changes and we were expected to keep updated. Students signed up for studio time slots to develop their pieces. The sessions when I was working in one of these time slots with a student were short and rushed. By the time lights, computers, projectors and cables were set up; we had an hour to work. This is how it often was at Goli, I had short stretches of time to work whereas at home I could work long uninterrupted hours, which I chose to do, but at risk of missing the action. Iván directed through assembling what existed around him. He would pick and choose from visuals I presented to him. He asked me to redo almost all the elements
that he selected and then when that was seen in rehearsals another round of criticism and
instruction would ensue. This put me in the position of having to remain decidedly flexible.

I understand little Hungarian and mostly did not understand what everyone was discussing,
but I could read gestures and emotions, and observe changes in the dance. Iván translated
things for me on a need to know basis. In the heat of production this task aggravated him.
Students that spoke English explained pertinent points. I kept a daily journal that contained
drawings of the choreography, stage scenes and notes. (Appendix A pp. 50-51) My sketches
turned out to be a useful communication tool for me.

Concerning technical needs, what would have been easy for me to manage in the U.S. was
fraught with delays due to the language barrier and also to the different organization of
categorizing and naming stuff. It was challenging to predict how much time was needed for a
task. Simple tasks such as installing software or changing system settings were obstacles
because of the Hungarian operating system. It was very problematic for me to research
equipment and contact vendors.

Some cultural assumptions caused confusion. For example, what everyone considered
stage right and stage left was opposite to what I know. People spoke in meters and kilograms
and this took some getting used to. Those were easy to clear up. More difficult were
expectations about what was to be accomplished, when, and how. It was not easy for me to
understand who was responsible for what. Within the dance school many knew each other for
years and were accustomed to how things were done. There was little experience in
communicating with a guest designer. Almost everyone involved spent eight hours or more a
day together. If I spent a day or two at home working I often missed some development that
affected my work.

Iván was concerned that the visuals be integrated into the choreography and not detract from the dancing. His concern played out in different ways. It was something he emphatically stated at the beginning and reiterated on many occasions. On stage instead of using projections to attract attention during transitions between scenes, he often blacked out the projected image all together. To clear the stage in the final scene the screens were walked upstage so that the image shrunk down to about 50cm wide, which gave a symbolic message that the dance was the critical thing. This message carried over from the imagery to my person. At the first tech rehearsal in the studio he demanded I make myself as small as possible in the corner to give the space to the dancers. Conceptually I found Iván’s idea, to have imagery that you don't notice, a valid idea and an aesthetic challenge. In practice, his insistence on reining in the visuals while working with a projection designer on a piece called VÜ was a bit ironic.

I have received similar requests from other directors to reduce the scale or in some other way present images that don't detract from the actor. These requests are not in response to my work but as a prelude to the design discussion. I wonder if the rising tide of imaging technology in scenography is causing a reaction in the dance and theatre community. Some Directors may be wary of getting sucked into the spectacle of imagery which is readily achievable. In the trial and error of this developing art form, projected imagery has been used full bore because it can be. If not used with restraint, projected imagery can overwhelm the stage action and divert attention away from story and language. Its inclusion can evoke the presence of global media systems in a way that may or may not suitable to the work,
especially plays created prior to our modern telecommunications network. It will be interesting to see what happens to the concept of the body on stage now that we are becoming accustomed to seeing the actor within gigantic animated scenes, or the actor in front of a recording of themselves reiterated, enlarged and edited, live or prerecorded, on multiple projection screens. Holography and 3D systems are adding another dimension to the impact of imagery on stage as they are become more accessible and sophisticated.

Iván has had a long history of working with video and optical effects in his work. In VÜ, for the most part, he kept with the video vocabulary that he was familiar with and did not delve into the capabilities unique to a digital interactive environment. After the performance we discussed the operating issue again. I think he gained an understanding that this digital projection system provided more choice and subtlety, but also more complexity than he was accustomed to. He had not understood what the situation had demanded of me. What I learned from this was to be clear with my director and the production team, about what it takes to accomplish a desired result or change.

Reflections on my contributions to the project:

I can see better now upon reflection, than I could in production, the role that my imagery and design had in directing the work. My picture selection brought to the table unusual juxtapositions and possible directions for the director to take, and instigated dialogue that prefigured significant aspects of the work. The elemental images of stone, water, fire and ice became a theme, and also grounded the dance in the material aspect of place. My birds-eye view of pavement series evolved into the aerial view of Budapest. The imagery brought in a social context by offering documentation, historical references and an act of witnessing. My
work opened doors concerning what was possible with the media and imaging techniques, and
provided, through design and display experience, the means of having a large range of effects
with fewer pieces of equipment. This sequence of film frames I put together of the Csardas (p. 30) dancer, along with the four video stills of Sanyi (p. 28), were used for the promotion material of the performance on-line and in print. These two contrasting images capture the historic and technological themes continually at play in this dance.

In hindsight, there are a few things I would like to have done differently. One would be improving efficiency. I spent considerable time fine tuning video and code before the work of my collaborators was complete. Sometimes I erroneously thought it had been endorsed when it had not, which suggests the need to develop a better system for registering the directors approval. Another work flow issue made my job harder. In the first weeks it was made clear to me that I would have assistance from three colleagues. I had counted on certain things being handled by others, but as it turned out, two helpers were spread thin and one was fired. I should have made a serious effort to steer help back toward me. Instead, I let it slip away and simply worked harder, and in some instances, cut back on deliverables. I was not assertive enough in this area. Although language was an issue, the problem derived more from my own timidity. I could have been a stronger advocate for my design choices. When, as frequently happened, I was directed to make change after change on a single item, I often complied without offering a reason or explanation regarding the value of the work as it was. Part of my job is to characterize how my design choices and methods contribute to the objective, which may not be recognized by the director initially. The role of a designer requires being both assertive and obliging. It is precarious. There is the possibility of being too assertive, and
overstepping one's authority, but also too obliging and being remiss in contributing properly to the work.

Working with Iván Angelus:

After being around Iván for these months, I have a better understanding of what compelled me to work with him. The work he produces consists of many layers, which reflect the breadth of his knowledge and experimentation. He is a thorough thinker and an eloquent speaker. He readily pulls from memory significant and accurate details from a wide range of topics and historical events that are applicable to the composition at hand. As he works, he is all the while responsible to the training of young dancers and choreographers, and he gives them significant opportunities to present their work on stage. Iván is a leader in the greater community as an educator and an artist. He creates ways in which dance can be of service to the society, and also be sustained by it.

In the development process Iván worked with his dancers, and with me, relentlessly on owning the moment and the gesture, nothing is to be done by default. Choices are deliberate, we are accountable to them, and should have an intelligent rationale when challenged. In matters of the stage, his sense of presentation is elegant and extraordinary. His feel for pace allows scenes to breath. He does not enforce this with external clocks; but he gets people to tune in to the timing from the inside out. Projections are something between sets, lighting and music and in some cases performer. The imagery in this production was closest to the qualities of music where timing is at the essence, and he was very sensitive to this.
WHAT’S NEXT?

Taking a look at the 'Prague Quadrennial of Performance Design and Space' program for 2011, it is clear that scenic design has been undergoing a rapid evolution, technically and aesthetically. Scenography has expanded its scope and moved far into the realms of fine art, film, architecture, urban planning, games, corporate theatre, fashion, advertising and exhibits of all sorts. Events presented in Prague this year include such ideas as: "Past and Future Challenges for the Encounter between Art and Science", "Between Micro-politics and Poetics", "Projection by Request", "Landscape #4", "Design as Performance", "World of Interiors", "Environments of the Future", "The Intersection of Analogue and Digital 3D Space", "Robotic Opera and Beyond", "Sky Opera", "Fusion Space/Fluid Space: fusing and merging theater spaces for multidisciplinary use", "Scenography as a tool for communication in urban space", "Deep-Mapping Heterotopian Intersections", "Intimacy and Spectacle: Site-specific performances", "Beyond Gender: Integrating performance technologies into scenographic and dramaturgical practices". These are a few of the many titles that reflect the dialectics of change that theatre, and in particular scene design, is going through.

Theatre has been injected with great technical and conceptual innovation including the radical contributions of the digital media revolution. The scene/context of the play is changing with the inclusion of such things as: interactivity, global networking, real-time image editing, pre-recorded elements as actor, media technology as character, the scene/landscape as character, virtual scenes and multi player game scenarios with avatars, environmental installations and other intentional situations in public places in which viewers unwittingly or by choice participate. Scene design, traditionally a platform for human action, is now
endowed with agency. There is a kind of agency that comes from interactive, robotic and networked features that allow the scene to be responsive, have the means to participate in the live action or have a semblance of character. Image/media projection is a big player in this. Although the use of it in theatre has been around for many generations, what is remarkable now is the quantity, the portability, the access and the technical sophistication that has developed. Not long ago considered an emerging field in education environments, it is now becoming standard fare. Image/media projection is a potent feature of theatre on stage and also off the stage in the form of promotional and dramaturgical materials, such as, performance videos, documentation as a development tool, 'the making of' movies, portfolios, marketing and social networking. The possibility for visualizations and access to publication is extraordinary. I agree with electronic media critic Timothy Druckery, who writes, that along with global communicative networking, "image processing, and animation have fueled what is undoubtedly the deepest transformation in the epistemology of western culture." ¹

This emergence of digital imaging technology has coincided with the expanded use of automation technology, template design, and algorithmic filters and actions. We have grown to accept formulaic content and style driven by the large scale business needs, and have become accustomed to the dominant image standards in terms of saturation, format, transitions, interpolation, derivative effects and so forth. Image manipulation and projection in theatre has grown with the methodology and the aesthetic that has developed by an inartistic and highly competitive industry - including the off-the-shelf programs used by creative workers which are intrinsic to industrial application. It is important to make a distinction between theatre arts and theatre as industry. It is important for designers to be conscious of
the digital tools and iconography we are using.

What is being seen is political. The images in circulation are writing history. What is visible, in a political sense, concerns its opposite, the exclusion from the regime of visibility. As we all adjust to this tectonic shift in the speed and quantity of visual information, replication and edit-ability, how do we move forward responsibly? How do we ground live theatre in relevance and stimulate critical thought? I ask this in relation to all theatre, but especially work for mainstream audiences because it is there that I see a valuable forum for public discourse.

What is next for me in theatre design? My intention is to establish a profession in design and production of performance works, installations and exhibit design. I have worked with choreographers many times in the past ten years, creating moving imagery for dance. What suited me in these projects is the interpretive quality that takes place. My interest is in the poetic and allegorical aspect of theatre whether it is dance, dramatic plays or street actions.

My art making background since 1993 has been interactive media and animation, and prior to that book arts, magazine projects and illustration. These skills and experiences have benefited and informed my endeavor into stage design. With the past three years experience in scene design at VCU, through projects, class time and working in the scene shop, I am much better equipped to understand the theatre space, the needs of a performance, and the historic context. I would like to work with a creative group, consisting of designers and other people with varying expertise, that could take on small and larger scale productions. I want to collaborate with others on original works. I would like to teach again. My preference would be an interdisciplinary art department or research institute involving some combination of
performance, visual art, textual works, music, art/science collaborations, and art as social action.

Art concerns not only the art making, but a vision of humanity. I see my participation as an effort toward awareness of history and of self. I am interested in working on projects that address current social issues, as Grace Lee Boggs puts it, "People are suffering economically, but I think they understand that the issue is not an economic issue. It’s a question of, how shall we live? How shall we continue the evolution of human beings? What does it mean to be a human being at this time on the clock of the world? And I think we have to speak to that."²


### APPENDIX A - PLANS, SCHEDULES AND PROGRAMS

Figure 1 Equipment Schedule

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This schedule of projectors, screens and cameras was used to inventory the media and equipment, and organize placement/connections for blocking and programming.
Figure 2  Screen and projector positions by scene
Figure 3 Cabling and equipment diagram
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Figure 5 Screen shot of Adobe Director with aerial view of Budapest

Figure 6 Screen shot of Adobe Director showing code for map behavior
Figure 7  Screen shot of Isadora showing the opening scene

Figure 8 Screen shot of Isadora showing snow video for 'Plastic Skirt'
Figure 9 A page from my notebook showing the 'Agrar' original sketch and mention of the Fashion show idea

```
FASHION SHOW

2 cameras front and back projected on board
delayed front view close up

NEPTUNE SOLO

mirrors or projected

archive footage of dancers

merry-go-round
```
Figure 10 A page from my notebook - September 16 2010, first thoughts about Casabas' dance called 'wide stage'
APPENDIX B - SELECTED RESEARCH

Loïe Fuller is not actually regarded by modern dance history as a dancer or a choreographer. This is because her main concern is not dance, or movement itself, as it is for the whole rest of following modern dancers. Though, she is the author of hundreds of scenic art pieces in which she displays innovative experiments mixing lightning, scenic elements (big tissues) and dance.

Fuller is known to have transferred her colorful stage lighting effects to film.

From the 1896 film of the 'Serpentine Dance' by the film-makers Auguste and Louis Lumière gives a hint of what Fuller's dance works were like. This is not Fuller.

'Loïe Fuller is not actually regarded by modern dance history as a dancer or a choreographer. This is because her main concern is not dance, or movement itself, as it is for the whole rest of following modern dancers. Though, she is the author of hundreds of scenic art pieces in which she displays innovative experiments mixing lightning, scenic elements (big tissues) and dance.'

5
'A particularly pleasing result was obtained by painting a gilt network on the slide through which the light was thrown. This colour projected on to a white costume very justly took the title of "The Magic Veil".' (The Dancing Times, London, January 1922, p.353)
Fuller was a muse for many artist at the turn-of-the-century. She influenced Toulouse-Lautrec, who sketched her during performances in Paris. Her work continues to influenced and inspire today.

Two scenes from “Botanica,” the latest work choreographed by Moses Pendleton for Momix 2010-2011

Michelle Ferranti - Orchard Costume

Moser Koloman oil painting um 1910
Since the formation of Nikolais Dance Theatre in 1948, his blend of unusual props, innovative costumes, psychedelic lighting designs, and original music compositions have transformed stages into abstract environments and his dancers into curious creatures. Alwin Nikolais' dance “Discs,” shows his use of body extensions. Large colored aluminum discs on one foot, serve in various aesthetic capacities. Dancer and author Ruth E. Grauert, describes this feature, "Originally intended simply to extend the dancer’s range of balance by providing a larger than normal base, they also add a vertical extension as a great “toe shoe” might; they increase motional dynamics with their added weight in swinging. The shape, color, and material were aesthetic decisions, producing moving visual elements in themselves, and the heavy aluminum gives a satisfying, large, loud clang when the dancers stomp the floor."
Ririe-Woodbury Dance Company in 'Tensile Involvement' (1955) - large rubber bands forming a grid.
Photo: Brent Herridge.

The work of Open Ended Group and Linda Childs extends the dance movement with projected imagery.


'Dance' at the Joyce, NYC, is a signature 1979 work of Lucinda Childs, score by Philip Glass film footage on video by Sol Lewitt is projected on a floor to ceiling scrim.

The work of Open Ended Group and Linda Childs extends the dance movement with projected imagery.
I looked at many pictures showing graphic elements integrated with the body and with motion. Robin Rhodes above and Yayoi Kusama below.
Preliminary ideas from scene from multimedia presentation compiled in Adobe Director.
Scene 1- 'Fashion Show' details - two live 2 cameras and triple image projections
Scene 2 'Plastic Skirt' - moon light with yellow snow flurries

The Fuller Dancer cascades across the stage
Scene 7 - Patrik and his yellow head.
Scene 8 - 'Mirror 2' - live camera and projector feedback enhances the split screen video mirroring.

Scene 10 - map on floor is set into motion as the group of dancers travel across the stage area.
Scene 9 - Silhouette Duet with double sided projection of flames and water