Of Theatre and Algorithm
Interview with Annie Dorsen
New York Express (2)

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[Figure 1]

NATALIE RAYBOULD, NICK HALLETT, HAI-TING CHINN, *Yesterday/Tomorrow*
Alexandre Schlub
The Context: *Yesterday/Tomorrow*, PS 122 and New York Express

1 In November 2015, Annie Dorsen presented her show *Yesterday/Tomorrow* at Théâtre Garonne for the second edition of the New Express Festival in collaboration with PS 122, a major non-profit organization supporting contemporary performance art. One of PS 122’s missions is to promote American innovative artists outside the borders of the United-States. PS 122 Global set a European tour called “New York Express” and in 2015, Annie Dorsen’s *Yesterday Tomorrow*, Faye Driscoll’s *Thank You For Coming : Attendance* and Andrew Schneider’s *YOUARENOWHERE* were performed in four venues in France.

2 *Yesterday/Tomorrow* is a music performance and the third show of what Annie Dorsen calls her “algorithm theatre” trilogy. The piece performed by three singers starts with *Yesterday* from the Beatles and slowly evolves into *Tomorrow* from the musical *Annie*. The singers follow the scores generated by a computer which shift from one song to another through an algorithm.

The Web: Online Information on Annie Dorsen, *Yesterday/Tomorrow*, PS 122 and New York Express at Théâtre Garonne

3 Official biography of Annie Dorsen : http://www.anniedorsen.com/
5 Website PS1221 : http://www.ps122.org/global/

[Figure 2]
The Interview: Meet Annie Dorsen

Emeline Jouve: Before talking more specifically about your work, I thought it would be interesting to start with your interview of Judith Malina for Not Just a Mirror. Looking for the Political Theatre of Today edited by Florian Malzacher. I not only learned about the co-founder of the Living Theatre, who sadly passed away shortly after you met her but also about you!

Annie Dorsen: Oh my god what did you learn about me? (laughs)

EJ: When you asked her about the training of the actors, she referred to the Living Theatre’s desires to influence the audience. You reacted to and said: “I sometimes feel I want to resist the temptation to try to influence people. Perhaps it is too arrogant to think that I will change the audience.” Could you come back to that?

Annie Dorsen: You could trace that notion back to one of my great influences, John Cage, and the idea that the performance can take place on an equal footing between performer and audience, rather than the performers or the director having something they try to communicate, something that they know already but the audience doesn’t know. I was very struck by that when I read Cage’s writing and I liked very much the notion that we can all come together with an equal curiosity about what will transpire on this particular evening. The power relation between the artists and the audience can
somehow be equalized and we meet as curious friends rather than, I tell you what I think, or I persuade you, or I entertain you, and then the audience only receives. I thought maybe there is something we can make that is a more collaborative experience, where we make something together. That is what I was referring to when I asked Judith that question. Judith was such an incredible artist but also quite a woman, a character! Her strength of purpose was so persuasive that by the end of that interview, I really felt that she could convince me, that I was ready to reevaluate everything. I am sure she had that influence on a lot of people.

EJ: You feel that you are ready to influence the audience?

Annie Dorsen: She said next that people do change themselves of course, but they do it by example. They see an example of something that inspires them. Or something that provokes their imagination of what is possible. So maybe Judith and I didn't disagree as much as it seems from that first question. That it's not a question of you changing them, as of you presenting something you believe in. And possibly people, if it hits them at certain moment of their lives, will walk through the little door you open. But that is really up to them. So that is what I mean by collaboration, that we can make something together. We share with each other in that sense.

EJ: How do you engage the audience into your works? How do you get them to collaborate?

Annie Dorsen: Normally what I respond to in art works is a proposition or an invitation to think differently than I have before. Like some space gets opened in which my perceptions can be transformed. It is what I try to make for myself and for the company I work with. And I also try to make for the audience an occasion for transforming one's perceptions and thinking. The audience is having a productive experience of their own, maybe inspired by what is presented. Their own imaginations get activated.

EJ: But is it more about perceptions than ideas?

Annie Dorsen: Well, I am not totally sure what the difference is all the time. I think the protagonist of my pieces is an idea rather than a character or a person, you watch an idea changing over time. But of course the means of communicating that idea are perceptual means. What you have is lights, space, gesture, body, voice, language, all of which can only be communicated perceptually. The manipulation of perceptions is the tool to use to inspire thinking.

EJ: I guess the perceptions also depend on the spectators themselves: who they are and what they are going through in the lives at the moment of the show.

Annie Dorsen: When we presented *Yesterday/Tomorrow* in Oslo in September, I was speaking with a friend who came to see it. He had been going through a difficult time and had a completely emotional experience, and he felt that he was watching his own life pass by onstage. But there was also a few musicians in the audience that night and after speaking with him, I spoke with them. Their experience was all about mathematics and composition in music. I like it very much when my pieces are available for multiple frames of reference, the focus can be political, or can be on a mathematical computational side, a more philosophical side, or even an emotional side. I try to activate a set of ideas together in a way that will be productive. But the meaning that individual audience members make has very much to do with them. I take again from John Cage the notion that I don't know the audience and it would be a bit arrogant
to try to manipulate them. It is also arrogant to try to manipulate people you do know! So I tend to think about the question of respect.

EJ: You don't want to manipulate the spectators but rather stimulate their creativity. The spectators are not the only ones who are creative: for you, computers are creative too. I was wondering to what extent computers because of their creativity are manipulating the performers on stage and vice versa?

Annie Dorsen: This is the tension of this piece for sure. The algorithm is pushing the singers around. But then the singers push back with their human capacities, their expressivity, their warmth, their artistic judgments. Their decisions about what to do with the stuff that they are given. I think it's a bit like this: you don't have any control as a human over what life gives you, but you do make decision after decision about what you do with it, how you respond. So that is a bit the mechanism here. There are these kind of forces, algorithms and digital systems, which are very hard to perceive, they are mostly invisible, they are mostly operating on the level of structures, but they have a huge influence on our economy, our social lives, our communication, our politics. There is something like a magic to it because these systems are obscure to most of us. But those who know how to use them, and know how to write them and manipulate them, are like a holy order of priests. We laypeople need to go consult them in order to have any access whatsoever to the way these things work. If we accept this analogy, this world of technology is a kind of almost magical untouchable given then we are left only with the decisions about what we do with it, how we respond and how we still try to make human connections.

EJ: Are you trained in computing?

Annie Dorsen: Very little. I have learned a lot since I have started working this way but I had no real background in Computer Science. In 2009, I started a piece called Hello Hi There which was the first algorithmic theatre piece. From there, I started to educate myself. But of course it is a massive field and I was advised many times that it might not be worth it for me to learn how to code, because by the time I got good enough, it will have moved on so far! So I know a little bit and I work very closely with the computer programmers. I do a lot of the content work for instance. In the Hamlet project, the computer programmer I worked with gave me a set of tools and taught me how to use them so that I could do some of the coding, but he did the big structure of the program.

EJ: Why did you want to work on algorithm? What was the beginning?

Annie Dorsen: It started with Hello Hi There. I was researching on the debate between Noam Chomsky and Michel Foucault from the early 70s and I was struck by their very different perspectives on the relation between language and consciousness. It seemed to me really fertile and still the same way we discuss now—it didn't seem dated at all. Someone mentioned to me that I should look at how Chatterbots work, and the early phase of artificial intelligence because it is a third perspective on the relationship between language and consciousness. From there, I thought that it could be really theatrically interesting to have a piece that would where the text would be generated at each performance in real time by two machines that are trying to do philosophy and think. So you are watching a thinking process, but a mechanical one. That was Hello Hi There. Towards the end of that process I started thinking that the algorithm was the performer. It was no longer an inert tool but was an active live thing. It really does seem to create an interesting challenge to a lot of things that we think are the very fundamental aspects of theatre. Like that there should be a body on stage that we can
attach to, that the language spoken should be a kind of clue about inner state of a character, or that theatre is necessarily about ephemeral presence and disappearance in time. I thought that these non-human thinking machines are in a way immortal. Or at least their lifespan is definitely greater than ours. And their language does not arise from consciousness - they have no desire and they have no body - but they do have some kind of presence. I then began to think it would be amazing to do a series of projects that try to investigate those three aspects of algorithms and how they relate to what we think is theatre, what we think is performance, what we think is necessary in terms of the relationship between the stage and the audience.

EJ : What is artificial intelligence to you ?

Annie Dorsen : The field of machine intelligence is enormous and there is a lot of different avenues researchers have gone down. I think of it in a very simple way : they are decision-making machines. An algorithm is a tool that humans write that allows computers to make decisions autonomously. You set up a system in which the computer turns an input into an output. What is it if not creative ? There is a wonderful scholar named Margaret Boden who works on computer creativity and human cognition and the relations between those. She talks about different kinds of combinatorial creativity which computers are very good at. It means that you take something from column A and something from column B and no matter how complex the rules that govern what can go with what are, a computer can run through every imaginable possibility very quickly. The problem is that they are not good at picking which results are valuable. You need a human to make the decision about which ones we keep and which ones we can get rid of. Many early algorithmic visual artists were interested in trying to avoid making those value judgments. So they would run their programs through a hundred times and present a hundred outputs. Theatre is a little more complicated because we are not going to see the same show a hundred times. Generally, we will only experience one output. So I also have been working on understanding what are the challenges that are unique to performance. Maybe it helps me understand what theatre finally is, which is one of those three thousand year old questions that no one has a very good answer to. The Hamlet project was mostly about seeing if we could teach a computer system how to do Hamlet. When a company of humans gets together to realize a production of Hamlet, they use so much almost unconscious information about what our ideas of human nature, about behavior, about spatial relations, about social relations, history, political history, etc. How much of that do you need to give a computer, how would you start to rationalize the theatre making process in a way where you could teach a computer how to do it autonomously. That was one of the first questions the first generation of computer artists asked : how would I really break down my artistic process into steps that a machine could follow ? That is a great question to ask in theatre also. Is it even possible to break down a theatre process into these kind of steps and make a logical system of a theatre production ? My answer is probably no by the way. Visual artists are working with a much more constrained situation, a more constrained set of tools, I mean if you are talking about something you can hang on a wall. ... Theatre is a more slippery medium.

EJ : Would you say that your pieces explore a specific theme ? Is there a thematic recurrence in your work ?

Annie Dorsen : I think there is always something about the human body, how a human body responds to non-human language.
E.J.: Let's go back to the piece you are presenting at Théâtre Garonne: what was the genesis of Yesterday/Tomorrow?

Annie Dorsen: I was talking with a computer programmer about machine learning. We had done Hello Hi There which was a very simple program...

E.J.: You always work with the same programmers?

Annie Dorsen: No, because they get money jobs. They go make their fortune in Silicon Valley! I had been talking with a programmer about machine learning in general, and evolutionary algorithms in particular. In Hello Hi There, the program was very simple and even old-fashioned. Piece of Work was a little bit more sophisticated but still a closed system. So I thought it would be nice to do something with machine learning, in which the outcome is more uncertain. Also, I knew I wanted to do something optimistic because the last two pieces were quite dark. I wanted to make something that has an opening towards the future. So the programmer came to New York City and we worked for a couple of weeks building an evolutionary system that would transform Yesterday into Tomorrow. It didn't work at all! The best program we ended up with after two weeks of full time work would leave Yesterday and get maybe 35% of the way towards Tomorrow. Then, I asked him what if I got a laptop, put it in my apartment and just let it run continuously to try to solve the problem. He said, “the stars will go dark, the sun will grow cold” before we would ever get there. It was just not the right tool for the job.

By that time I was quite interested in this idea of taking Yesterday and turning it into Tomorrow. Not only for the programming interest, but also in terms of what it would produce musically, and as a nice metaphor about the passage of time. About the complexity of the present, the memory of the past, and the imagination of the future. So I decided to do it anyway and find a different programming solution. I met by chance a Chinese mathematician at a bar over a drink and she wrote this equation on the back of a napkin, which is more or less what we are actually using for the show. Then she went to go work for Google. In the end, it was a different programmer who took her sketch and developed it out further into the code that runs the piece.

E.J.: I have heard that you initially wanted the audience to walk around but that you were afraid it would be difficult to tour...

Annie Dorsen: Oh, that is not why I changed it! It had nothing to do with the touring. I changed it because when we were in our first rehearsal with the singers I realized that the music was interesting—I didn't know for sure that it would be. I had been listening to outputs with MIDI instruments, and I thought maybe the music could be cool in the beginning and in the end, but it might not be something you want to sit and really listen to. In the first rehearsals with these astonishing, great singers I realized that we were going to get somewhere musically thought would be interesting and would require concentration. The idea of having the audience and the singers wandering around the room, would have really killed any possibility of really hearing the complexity of the music. So the decision was made much more about what kind of audience attention I was going to be asking for. Imagine if people were wandering around and whispering to each other, and rustling their coats and bags, it would have been horrible and you wouldn't have gotten anything from it really.

E.J.: It would be a complete different show!... Are you a musician yourself?

Annie Dorsen: I am only an amateur.
EJ: You deal with theatre, music... what is your artistic background?

Annie Dorsen: My background is theatre. Really hardcore theatre history, directing etc. ... I directed text-based theatre for a long time before I started making my own work. So that is really my home planet, my home-base. But in 2004, I started working with musicians for the first time and in 2008 I decided not to do scripted theatre anymore. I started working with choreographers and musicians. I thought maybe I would go fully into the music scene because I got a lot of interest from a show that I did with a rock band. A lot of people were asking me to work with their string quartet or their orchestra or other rock bands or singer-songwriters, to create some theatrical experience for their music. I thought I would do that for a while: I did two or three of those projects and I realized I was just heading in a more concept-based direction. There was a gap between the way I was thinking about creating theatre and the way that they expected me to be making theatre. I worked with the string quartet Ethel, the hip-hop band the Roots and I worked with a composer named Laura Karpman to stage an opera. I learned a lot about music from all of them. Then, I did two collaborations with the choreographer Anne Juren, from whom I learned a lot about dance. I am also involved in an artist residency space in France where a lot of choreographers are working.

EJ: Which one is it?

Annie Dorsen: it is called PAF, Performing Arts Forum in the North East. It is near Laon. So I got a kind of informal education on contemporary dance from people that I was lucky to meet there. Somehow, the combination of my theatre background, the type of dance that I was getting interested in, the music influence, and my interest in philosophy and politics spit out this algorithm stuff.

EJ: The algorithm is very specific and some people may say that you need the knowledge to get the piece. People who are well versed in math or music may be more "able," so to say, to appreciate the show. Do you feel your audience needs to be educated to appreciate it?

Annie Dorsen: I think that is a tricky question. On the one hand I would say of course not—because I make pieces that aren't meant to convey a message, so there is no question of someone “getting it” or “not getting it.” It makes me think about the Rauschenberg piece Erased de Kooning. It is my great example when I am teaching students. You go to a museum, you see a piece of paper with some erased marks on it and you look at the title and it says: Erased de Kooning. You don't know who de Kooning is or what the means to Rauschenberg, what that has to do with anything. Do you get the piece or not? Maybe you get that something has been erased, that is all you get! Does the piece then not work? I wonder about that. The other example I use with students on this question is Cage again. If you have no clue how Cage is making his music, you might be completely bewildered when you will go to see chance-operated Cage pieces. Cage would never explain within the piece what the rules are. But he would talk to anyone, students, journalists, one of the musician's mother, he would always be willing to talk about what he was doing. I sort of followed that lead. That you don't put the explanation in the piece unless it is pertinent, unless it belongs there. But I don't think it is such a big problem if some people feel like there is something they are not getting here. If they are curious, there are lots of information that they can pursue, and if they are not curious then no problem!
EJ: What about the presenters’ visions? Are you asked to communicate about your work by the directors of the venues who buy the show and who may be afraid that the experimental dimension may scare off the audience?

Annie Dorsen: Some venues have made sure that we always do an artist talk. And I love to do it. I love them! I am always so curious about what people will ask, and what they’re thinking about. Some venues make a lot of efforts to contextualize. Other venues don’t and that is fine for me either way. I enjoy the conversation about the work very much, I am always very happy when I feel the theatre wants to make some activities around the performance. I am sure it is helpful for the audience members. I had an experience recently. I gave a talk in Buffalo about “Algorithms and Affect.” I was using the *Hamlet* piece as an example because we do a lot of emotion analysis, which is sort of a trendy area of research. It’s about how you can make an algorithm produce emotions. We used some of those techniques in the *Hamlet* piece and as I was talking about the work, there was Jonathan Kalb, a renowned theatre scholar in New York, who said that he didn’t really go for the piece at first but after the talk he found it amazing! So I am sure it helps!

EJ: I was asking you this question because our debate this afternoon will be about financing the art. Because of financial reasons, some venues may go for “easier” pieces which do not need much communication or explanation and more experimental shows may be a challenge to present. Do you feel that being experimental is an obstacle nowadays to “sell” a show?

Annie Dorsen: I feel like I am experiencing a lot of luck and I have been amazed and deeply thankful for the support I have gotten. I do think the stuff I am making... you know I am going further and further with each piece and following it where it leads. But it is true that it starts to look a little bit more in Europe like the American landscape, where accessible or entertaining work is all that presenters can afford to do. A lot of my friends who have from Germany, from France, from Austria, or different countries in Europe, they tell me things have really changed in the last ten years. There was in many cities, in many countries, an ethic of supporting an artist for many years through the complicated work, and it was less about audience numbers and about packing the house. I came up in New York, where in a way everything is market based, no matter how it is funded. The value is to get a hit, to get a good review in the New York Times, to get the award, and whether it’s downtown or uptown, that is the goal. It is a bit heartbreaking to watch Europe, inch by inch, or rather centimeter by centimeter, move in that direction. But I am also an optimist so I think artists can get organized, and that there are some presenters who are also unhappy with the direction things are going, and that there are things we can do to turn things around. From my perspective, public funding is the absolute necessity and has to be protected at every cost!

EJ: Annie, thanks a lot for this interview.
NOTES

2. The oral interview was transcribed by Margaux Szuter.
3. A debate on the public funding of the arts was organized on the afternoon of the interview by Théâtre Garonne and the CAS research group (Cultures AngloSaxonnes, Toulouse Jean-Jaurès University, France). The discussion was entitled "Mordre (ou pas) la main qui vous nourrit (ou pas) : le financement des arts aux Etats-Unis et en France."

ABSTRACTS

Interview with Annie Dorsen who presented his show Yesterday/Tomorrow at Théâtre Garonne (Toulouse) for the New York Express festival in partnership with PS122. The interview was conducted on November, 28th, 2015 in Toulouse, France.

Entretien avec Annie Dorsen à l’occasion de la présentation de Yesterday/Tomorrow au Théâtre Garonne (Toulouse) pour le festival New Express en partenariat avec PS122. Entretien réalisé le 28 novembre 2015 à Toulouse, France.

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