

Interviewer: I recently had the opportunity to speak to Vicki Sowry, Director of ANAT South Australia. And ANAT is the Australian Network for Art and Technology. Vicki joins us today to tell us a little more about ANAT.

Respondent: So ANAT was established off the back of an exhibition actually at an Adelaide festival in the late 80s. And there was some exhibition at the art gallery which was curated by what was then the Experimental Art Foundation called Interface, and really it was looking, it was the first exhibition in Australia of its kind looking at how artists were using these newly available things called desktop computers. And it kind of, the interest overwhelmed the space (?) and so what ended up happening was an organisation was set up specifically for these artists called the Australian Network for Art and Technology. So that was over 30 years ago now.

The... so the first decade for ANAT was really about skilling up artists in software and hardware. And then the internet came along, and so this was about providing them with the skills to work in that space but equally as the internet proliferated more and more of that kind of hardware and software training became available to other people. And we've always really been about scanning the horizon and seeing what's new but could be of relevance to artists and then kind of building up a practice around that, and then as it kind of gets more established and other people start delivering those opportunities we kind of let it go and move on. So after a decade of that kind of tech training we were increasingly getting artists approaching us interested in like web science and research, and we realised those kind of, that skillset of working to non-arts partners about how artists could work with them could easily be transferred into, you know, from the technology sector and from the science and research sector. So that was when we started our science programming, and really since then those are our two core programmes. Kind of identifying stuff on the horizon that could inform or transform artistic practice in the technology space, and equally supporting artists to go in as creative knowledge holders in research partnerships involving scientists and other partners.

Interviewer: For emerging artists whose work aligns with this type of interaction, how would they begin to become involved in the sciences? Or is this something that would naturally occur through their practice?

Vicki Sowry: Well, certainly to date most... we're just responding to a need, you know. So a lot of it is emerging from the artists themselves and coming to us and saying, look we're really interested in this space. That said, we do things to try and support and build that community. Spectra, which is our art science biennial, has very much got that as a focus. So the first thing would be to build (?) something like Spectra and see what artists, how artists are working with scientists. A lot of... you know, we set up our first art science residencies back in 1997 and it's been really interesting watching the maturing of practice, and it's a

bit the new black, art and science, you know, everyone's really interested in this space. A lot of, but a lot of the focus still remains on arts being used, so, you know, communicating with science, whereas we're not... we feel there's other people who do that very well and so our focus is less... well, in fact, it's not on science communication at all, except myself I guess for outcomes for our projects. Our focus really is on saying, look, we've got wicked problems, scientific problems, and you can't have a simplistic answer to these. A multidisciplinary approach is best. A lot of the time... so these are very much research focuses. You know, our ANAT focus is on creative research and development for artists. So those, kind of all those stepping stones back at the very beginning of what might later be called innovation or... so it's a very experimental process.

The scientists find what happens is by having an artist in situ in their research space, you know, these are things really hard to measure in numbers but the scientists say things like, it was the artist's fearlessness which changed the way we were thinking, it's the artist's asked entirely different questions than we had considered. So these are the... so I guess, so to go back to your question, how do you get in this space? I mean I think one of the things to do is just read and have a look online and see how artists are working in these areas. And obviously, you have to have a genuine interest in the kind of scientific area. We find a lot of the artists who come to us for support have had, you know, a decade's worth of informal engagement in their particular research area of interest, for example.

Interviewer: So the whole idea is that there's going to be some generation of new knowledge through, you know, experimental discovery?

Vicki Sowry: Absolutely.

Interviewer: And is there an expectation of creative outcomes as well? Or...

Vicki Sowry: Look, that's interesting. That's a really good question. And it is, you know, I said before, art and science is the new black and there's a proliferation of opportunities. The thing that stands ANATs programmes apart from all of those is we don't require an outcome an the outset. So if you say at the beginning, "OK, well I'm going to go and work with this haematologist and at the end of it I'm going to have this exhibition", then the whole time you're in the research residency you're thinking about the work you have to produce and it can limit your thinking and limit what's possible. So we say, if you know at the outset what the outcome's going to be just go and do it, you don't actually need this residency. Our residencies are very much about the research process, being able to follow your nose. One of the reasons we require the artist be in situ is, you know, that American expression, the water cooler effect. You know, you run into someone and they say, "what are you doing here?" And you tell them and they say, "oh, that's really interesting. You should come and talk to us." And then it may

kick the research off into an entirely new... I mean, there are always outcomes and we find in fact there are more outcomes when you don't limit your thinking at the outset.

Interviewer: As an artist myself, I have participated in residencies and I have to admit, that is something that is in the back of your mind. You know, will there be an outcome? Will I be able to make something? And something always happens. You see an image, you talk to a person, you hear a conversation, and something is inspired from that.

Vicki Sowry: Yeah. I mean, one of my favourite examples of that is we had a wonderful very well established sculptor called Nola Farman, who's based in New South Wales, and she proposed a residency with the, with organic chemistry at the University of Newcastle, and their whole shtick was photovoltaic paint. So solar producing paint. So she was very interested because a lot of her sculptures are in public spaces and she was obviously interested in how she could combine that technology but didn't really have a fixed idea. And what she ended up doing was working with a mathematician as well as organic chemistry and came up with a solution to one of the problems in the solar industry, which is how do you get fixed solar panels to move to maximise their angle to the sun? And so they tried little solar motors and all sorts of things but they all break down, and blah, blah, blah. But with her sculptor background she was able to come up with using shape-memory alloys. So these are metals that you fix into a shape, say a spring, and you heat, you heat that shape and then, so when it's cool that metal will drop out of the shape and as it heats up it will return to the shape that it was set in. And so she worked with a mathematician to create a structure that the solar panels would fit in so that as the day progressed and the metal heated it up it would move to maximise its angle to the sun. Now it's an extraordinary outcome. It's still sitting in that bottom drawer because that's not their research focus and they hadn't found a way of commercialising that idea yet.

Interviewer: When an artist is working with a research body, do the outcomes belong to the artist or is it combined with the research body?

Vicki Sowry: You've got great questions, you know. We hardly ever get this question and it's one of the things that ANAT is very active in. No, the artist retains the IP in anything that develops in the project. The host organisation and ANAT and any funding partners are given a license for not-for-profit uses of the project outcomes, but the IP retains, it remains with the artist. And we've found in fact one of the most biggest challenges of this programme we've been running for a very long time is a risk avert nature of our host organisation's legal department. They're very, often very, very unwilling to give the IP to the artist. And so we see part of our role in these partnerships is educating those partners as to why it is important.

Interviewer: Vicki tells us a little bit more about the recent announcements of the 2020 Synapse residencies.

Vicki Sowry: Yeah, look, we were really excited with the Synapse programme this year. We had the largest field ever. Certainly in the earlier days, like I was saying before, you know, we could kick out 50% of the applications because they were really science communication. This time every single project was research focused. It was such a strong field. And unfortunately we can only support two currently. So we're really thrilled with the projects and artists. An Adelaide artist, Niki Sperou, who's been working in this space for a very long time and we've really been wanting to work with her and so she's come with this project working with Professor Wei Zhang at Flinders University, and he heads up the Centre for the Marine Bioproducts Development. So they are going to be working together to research experimental biomaterials and utilising marine seaweed biopolymers in the development of degradable bioplastics. So this idea of a kind of sustainable supply of the base material for bioplastics is really quite exciting and extraordinary.

Interviewer: One of the images provided on the website by Niki Sperou is her hand holding what looks like discarded plastic and it's quite interesting that it's actually made from a marine biopolymer material. So she's looking for solutions in the area which is most affected, which is our oceans.

Vicki Sowry: Yeah, look, I think, I agree with you. There's a real elegance in the concept. Often these projects, they work best when the question, you know, when it's simple not simplistic. You know, and I think not trying to do too many things or be too clever. And there is a really lovely elegance in what Niki (?) and Professor Zhang are doing together.

Interviewer: One of the questions that Niki is researching is if clean up is impossible, can we design it with zero waste as our goal? And a really simplistic question but a great question to be looking at through art and science is how we can do better.

Vicki Sowry: Well, I think there's this idea of biomimicry, looking to nature for solutions is, you know...we've only really just been scratching the surface there and I think without getting into any kind of spiritual realm but, nature works because it works and so let's look at why it works. And so I think, increasingly, and artists particularly, I think are really looking to this space and wanting to work with the researchers working in the space.

Interviewer: The second recipient of the Synapse residencies was Dr Deirdre Feeney, who will build on her previous work at the ANU Research School of Physics with physicist Dr Geoff Campbell.

Vicki Sowry: Deirdre Feeney's project, it's a bit more esoteric. It's quite high-level research, and it's looking at applications of optics really and feasibility of physically generating projected images.

Interviewer: How long does each residency last for? What time frames do they get to work within?

Vicki Sowry: So when we first started the residencies they were three months duration. We've found that that's actually not enough. So we, ideally, you know, we do evaluation surveys at the end with the host and the artist and invariably one of the feedbacks we get is these need to take place for longer periods of time. So at the moment four months full-time equivalent. That can be in one block, it can be in blocks related to field research or particular experiment durations, or it can be part-time. It really depends. We try and be as flexible as possible to enable the research to take place.

Interviewer: Vicki, where can people go to find out more about existing and previous residencies that have been held?

Vicki Sowry: Well, the best place to go to find out about what artists have done previously is to look at the ANAT website and just search Synapse and we've got information there really on every residency since 2004. Equally, the residents each have a blog and they use that as a bit of a research repository. So often... it's a brilliant place actually to follow the researching train and then also to see where it leads. Often, you know, these partnerships may not deliver dividends within the first 12 months, it might take two or three years. So we find that the blog's a really great way for the artist to capture those outcomes, those long-tail outcomes.

One of the nice things about Deirdre's residency with... I think the first part is they were able to participate in 2019 in kind of a pilot residency project to test the relationship and test their kind of focus and that collaboration was made possible because of an earlier Synapse residency back in the, oh, about 10 years ago. An artist, Erica Seccombe, an ANU artist, was working with applied mathematics and it was such a brilliant partnership that in fact continues to this day. But the ANU Vice Chancellor set up an internal ANU residency programme between the School of Arts and any other faculty within the university and so in fact, and so every year now that supports five or six artists to go and work with, in this case, in Deirdre's case, Geoff Campbell at the Research School of Physics. So it's a really lovely long-tail story about one of the outcomes of Erica's residency a decade ago now delivering us our current resident.

Interviewer: That is a wonderful story Vicki. It really shows to me the value that is placed on that long-term collaboration between art, science, and technology.

Vicki Sowry: Absolutely. You know, unfortunately we're working in a context where there's a very, very narrow definition of innovation at both federal and state level, which is that innovation is bringing a new product or solution to market. So there's that direct link with the marketplace. And what that does is it lacks the understanding of all of the work, the trial and error, the experimentation that go into getting to that point where you have this solution or new product or what have you. If all the focus is on supporting the product then we're essentially cutting off at the source a potential for innovation. So that's why we work in the space we work in and why we think artists, we think artists are crucial to this space and increasingly we're getting a buy-in from our science and research partners that this is a really valuable practice.

Interviewer: Thanks for spending some time with us today Vicki to fill us in on the latest Synapse residencies. I think these good news stories are something that we still need to hear about. You know, research continues, life still continues in these times of social distancing.

Vicki Sowry: Yeah, look, absolutely. And I think I have made that... I mean, I've already seen artists obviously starting to create work and engage with this very strange time and so it is going to be fascinating to see what comes out the other end.

Interviewer: If you're just joining us now you are listening to Festival City on 101.5 and we have been having a fascinating conversation with the director of ANAT South Australia, Vicki Sowry, in relation to their Synapse residencies. If you'd like to find out more about ANAT, it is anat.org.au.