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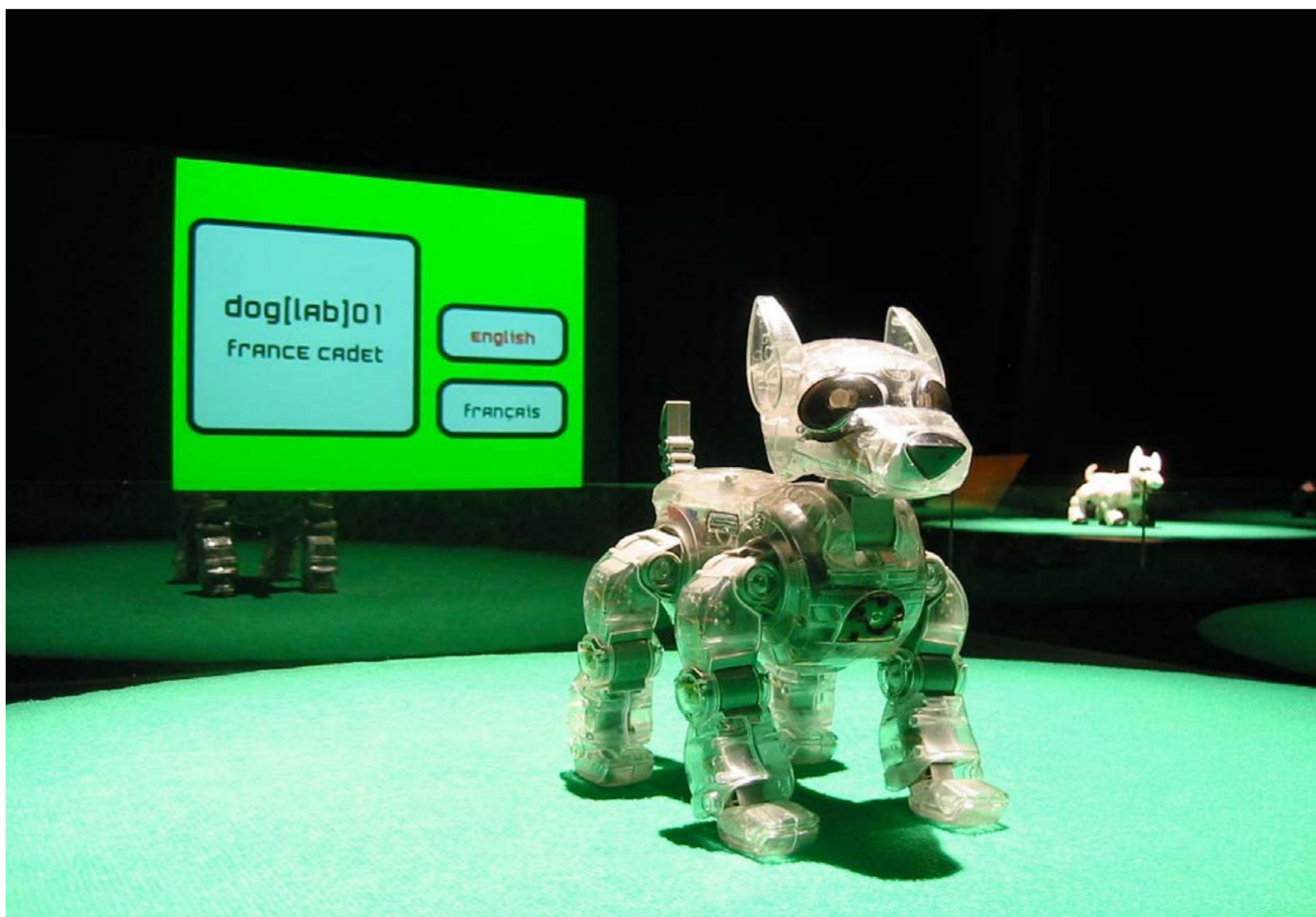
## Mechanical Animals

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# FRANCE CADET: DOG[LAB]01

*France Cadet, is a French Artist whose work raises questions about various aspects in science debates: danger of possible accidents, observation of animal and human behaviour, artificialisation of life, side effects of cloning...*

*Text by **France Cadet**; Interview by **Sonja Britz***



**France Cadet**

Dog[LAB]01, exhibition view, 7 robotic dogs, podiums, ID cards, 2004 © France Cadet

**B**lending in society, robots are now becoming more and more life-like. They are claiming to be acting as moral agents and have now the ability and desire to experiment social activities and pleasures. Amongst her more popular works, "Hunting Trophies" seem to have captured people's imagination in a rather complex way.

The project involves a collection of eleven hunting trophies hung on the wall. These are similar to those hunters proudly exhibit in their living room, but in this case, the original taxidermied animal has been replaced by a robotic rendition of it. Each robot has its own internal program which reacts with its outside environment thanks to its infrared sensor placed on its chest. Thus they can detect the presence and movements of one or more persons. When a viewer looks at the collection from afar, the trophies look like still objects attached to the wall. Their eyes are closed (turned off), their heads held high are still. But when a viewer approaches, they start to react. They turn their heads in the direction of the viewer, their eyes light up, their mouths open up as they start growling. When a person walks fast next to the trophies, a chain reaction will be triggered.

It is always surprising to see the unequal consideration given to animals and humans. Because on different cultures, the same animal can be either a pet, sacred, or appreciated only for its flesh depending on the geographical location. Nobody would want to eat their pet in western society, however the large majority don't seem to see any problem in breeding animals for food or clothes, in hunting or doing experiments on them to create unnecessary, yet safe products.

The idea of the animals as automata has been overtaken for a long time now by the idea of feeling pain in animals. Peter Singer argues that because animals have the ability to experience pain and suffering, they should be afforded the same moral considerations as any other sentient being. It could be claimed that his contribution to animals liberation is substantial even if I don't subscribe to its extreme utilitarian vision, I agree with the statement that "*the use of animals in medical research should be regulated in accordance with the principle of utility*" just like I condemn animal husbandry and intensive breeding. Nowadays, after asking ourselves if animals are suffering, we ask ourselves if animals think, and if they can be the subject of moral concern, which thus is blurring the boundaries between human and animal. Maybe should we wonder if humans have tamed animals or if animals have adapted themselves to humans? (i.e. Dominique Lestel's theory in "l'animal singulier"). We can say that my concerns are similar to those which motivate bio-Art or transgenic-Art in general, with the difference that I do it in a metaphorical way with my robots, I don't use genetic engineering or living being as a medium for artistic expression like SymbioticA, Eduardo Kac, Stelarc, Marta de Menezes, Art Orienté Objet ... but rather questionings on the relation between Human and Animal and Human

and Non-Human. I try to grant them back for a moment the right to life, to free expression and to judgment.

In this installation we can also observe that the fact these animals are robots raises other issues. Even though here they are used as a medium to express questionings about animals rights, and as a kind of representation, they are still robots and thus bring new interrogations about their quality, their function and their integration into society.

Therefore we could ask ourselves about the nature of these species of robots. How many are there? Any rare species? Any facing extinction? How could they be classified? Are they the testimony of a future world where androids could be facing extinction? Or else, have they supplanted real animals such as in Philip K. Dick's famous vision? Might we soon need a Susan Calvin, the famous robopsychologist from Isaac Asimov's novels? Just let me remind you AIBO clinic (Sony's robot dog) already exists! Like Frédéric Kaplan is doing it in his book: "Machines apprivoisées" (tamed machines), we could also ask ourselves about the place that these strange creatures could occupy one day in our society. But also... can we kill robots? And if so, can we do it with more impunity than animals? Which ones already have or will have more value? More respect? More rights?

***In her Cyborg manifestos to Donna Haraway defines cyborgs as creatures simultaneously animal and machine: both active in the world of social reality and fiction. To what extent do your species of animal-robots question conventional boundaries between animal, human and machine?***

I first started to use robotic dogs in my work because they allowed me to embody questions concerning animal rights, and the complex relationship between humans and animals which is central to my work. These questions have evolved over time. At the beginning I was more focused on the boundaries between human and animal, simply using the robots as a medium, then I became interested in using them for their intrinsic robotic qualities, hence questioning the relationships between humans (or animal) and machines.

In Dog[LAB]01, my first installation using I-Cybies, the seven transgenic and chimerical little robotic dogs were used to make a critical social statement about the excess and dangers of cloning, eugenics and other experiments using animals. It also dealt with controversies concerning artists using bio-art as an art form. The modifications of these improbable creatures were based on very real research and experiments done on real animals and demonstrate their possible consequences. Despite the fact that these animals robots are fictitious they still relay a social reality. The robots have the general morphology of a dog (I wanted them to look like pets) but some have bovine coats and



**France Cadet**

Dolly from Dog[LAB]01, 2004 © France Cadet

horns (mad cow disease?), or pork skin (xenotransplantation? Unless it's a cross with the famous nude mouse?). Barking is transformed into quavering bleats (ESB? Dolly's clone?), or meowing (research for the perfect pet combining cat and dog?). Some have clear jellyfish style bodies, others phosphorescent fur like "GFP Bunny" (Eduardo Kac's famous rabbit which used Green Fluorescent Protein). Another has human ears growing out of its back (Stelarc third ear? TC&A Pig wings project?...) even more surprising is the model with two heads!

With these animal-robots I tried to denounce harmful and excessive use animal experiments, through ironical caricaturization based on very real facts (even though I united different and probably incompatible transformations in the same robot).

I mostly focused on experiments which had had big media coverage so that people could get the reference, even though they were watching tiny transformed robotic toys.

These animal-robots could be here considered as a sort of burlesque illustration, an ironic metaphor, an

"entertaining" warning against these practices.

The fact that these animals are robots but that they suffer from diseases, or die (in Dog[LAB]02, where a pack of cloned robots like Dolly - the one suffering from BSE and premature aging - are dying in unison), challenges the utopian dreams of transhumanists in which robotic technology was seen as a means of overcoming our mortality.

The installation "Hunting Trophies" directly raises questions about animals rights, but it also introduces new interrogations about domestic robots and robots in general, their status, their function, and their integration into society.

The animals from "Do robotic cats dream of electric fish?" and "Gaude Mihi" are a much more accurate testimony of the breaking down of boundaries between animal, human and machine. Blending into society, robots are now becoming more and more lifelike they now claim to be acting as moral agents! They seem to be developing the ability and desire to experiment with social activities and pleasures. Thus my robotic cat might have the desire to entertain itself by watching pet

program on TV, or the rocking robot "Gaude Mihi" (literally *rejoice in myself*) which rocks when its owner approaches, might simply be seeking to generate its own amusement, therefore removing the participation of its owner thus redefining the role of the toy (and the Player). These last two robots tend to create more of a "real" situation and less a metaphor.

***In your recent work entitled Hunting trophies eleven robotic animal heads have been mounted onto a wall as in traditional trophy displays. What is the significance behind the number eleven?***

There is no particular signification behind the number eleven. I just wanted to build a dozen or so trophies, but I needed an odd number in order to hang them onto the wall in two staggered lines, with the deer-like species, which are more proud, above arrogantly gazing down at you and the cat-like species which are more aggressive, below, looking you straight in the eye.

***What qualities do you think animation versus static display lends to your work?***

The "Hunting Trophies" installation has a more traditional and sculptural aspect than my previous installations involving moving robots. For someone who discovers the installation, there's nothing that allows them to predict that these sculptures have the ability to move and react. These cut-in-half robots seem irremediably still. It's only when you approach to observe the details of each animal that they come to life. Compared to a traditional static installation, the effect of surprise is fundamental and an inherent robotic feature, and compared to other, previous installations, this effect is greater than when people look at single isolated autonomous robot which is already in motion when they approach. Even though these trophies are hung onto the wall and cannot jump at us, the fact that they are placed at eye level exaggerates their aggressive appearance. They stare at us menacingly whereas the other animals-robots are placed low, below the spectator, and tend to seem to be suffering or subordinate. They look more cute and not as dangerous and as a result the audience's reaction is different, people have more compassion for these poor animals, they probably feel superior, a protector, whereas they tend to feel uncomfortable and possibly disturbed by a wall hung with trophies which stare back at you.

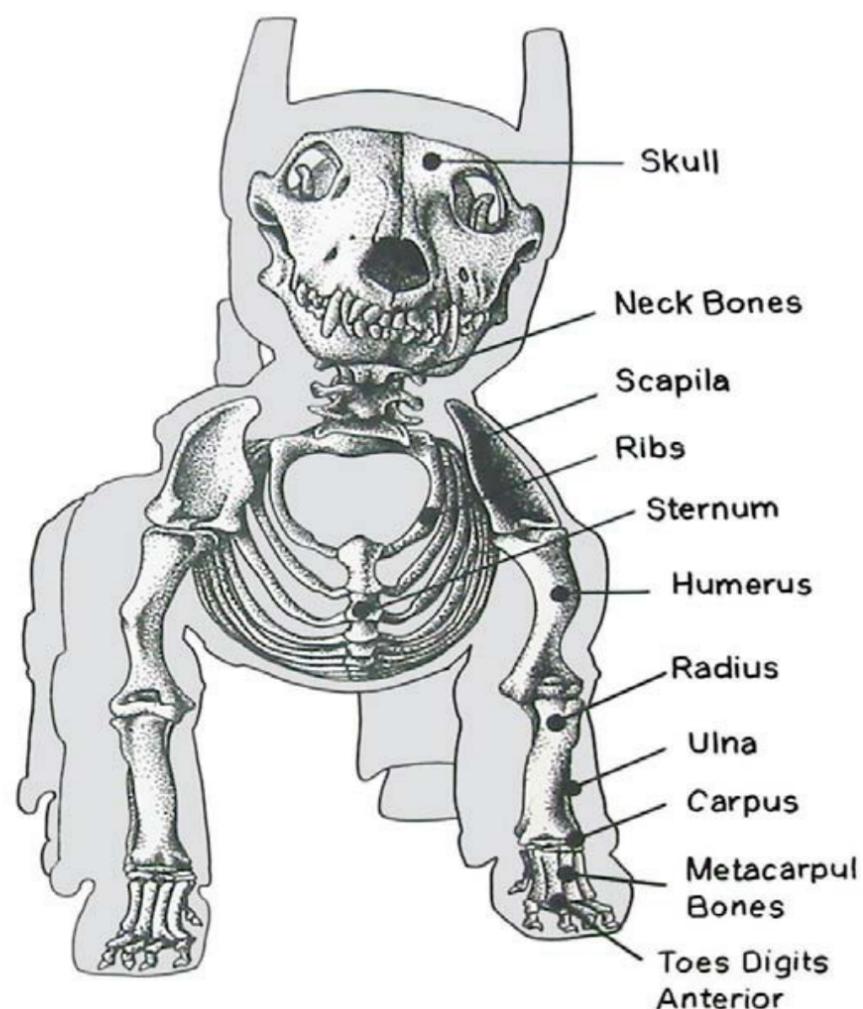
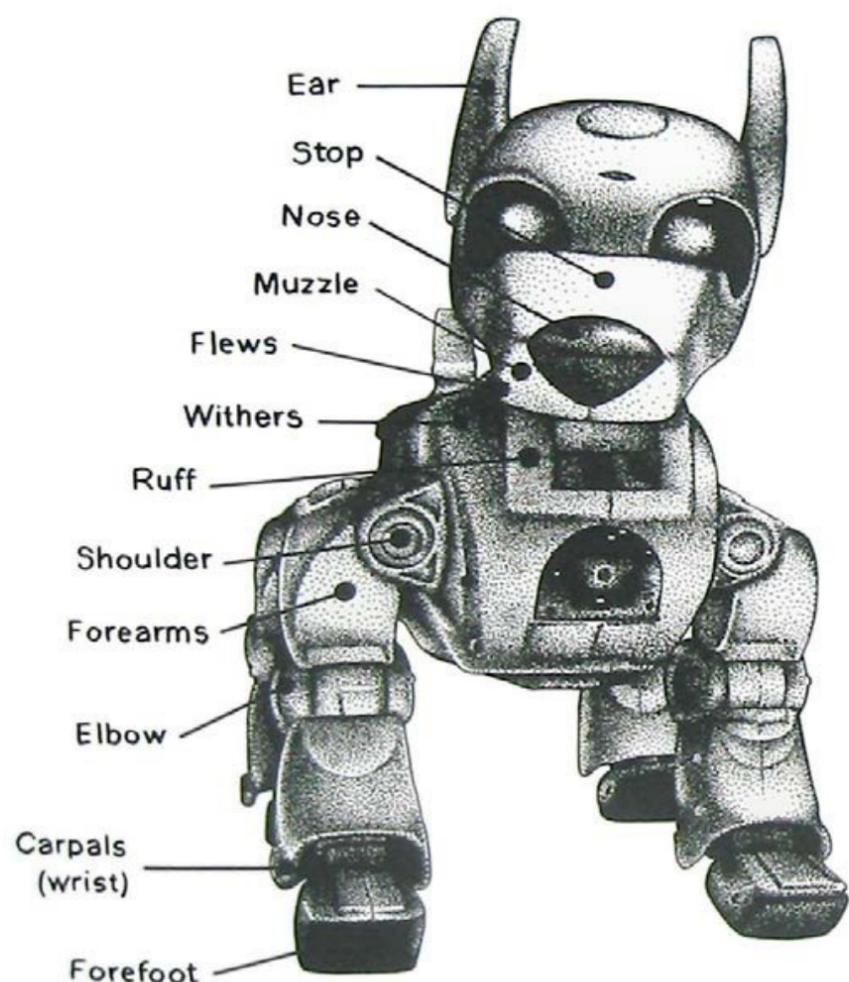
***Your hunting trophies seem to ironically defy Descartes' notion of animal as machine unable to experience pain; they protest even in death to the injustices suffered by their killing. Akira Mizuta Lippit promotes the idea of a third form of life – a technological life or a non-organic life in which the continued existence of the***

***animal can be assured and even repeated. Do you regard your robotic animals as a new and unique species of wildlife metaphors? If so, what sort of spaces do you think they can occupy?***

We first tried to compare the animal with a machine. Then Descartes' idea of "Animal-Machine" was ousted by the idea of a pain-feeling animal (Peter Singer), then by the idea that an animal could be the subject of moral concern, thus blurring the boundaries between human and animal. Simultaneously machines became more and more life-like and are considered by certain people today, to be capable of acting as moral agents too. We observe that these notions are merging and that we are moving towards Donna Haraway's model of modern science in which the distinctions between natural and artificial are completely restructured and the boundaries between nature and culture, animal or human and machine have become permeable.

The animals from "Hunting Trophies" are a possible metaphor of these new life forms. They assemble recognizable characteristics from existing species, mainly felines (lion, tiger, leopard, lynx) and cervidae (deer, moose, antelope, impala) which are found in traditional hunting trophies. On the other hand they have generic characteristics, a shiny skin and the same size as if they all belonged to the same species. They seem to be normalized, their biodiversity and taxonomic ranks & boundaries erased occulting notions of species, genus, family, order, class... and life. The standardization of our future natural world implies new life forms and more or less a unique species of wildlife. But my robots also embody the fact that most of the machines that we are creating refer to a natural model, or should I say to our *vision and interpretation* of nature, and even more to our *desire* of what nature should be. Even with the latest generations of self learning and adaptive machines, we observe that the result is generally a mimic of natural pre-existing behaviour. In the field of robotics, the use of animal-like forms might be an obvious reason. Particular embodiments, considered as *experimental variables* (i.e. Kaplan & Oudeyer), shape the robot's behaviour and its longer-term developmental patterns (i.e. legged robots locomotion, Aibo experiments, COG from Rodney Brooks..). Even the algorithms behind the concept of "artificial curiosity" in robotics - a sort of abstract motivation based on a form of curiosity where the robots search for situations in which they experience some sort of progress - are an artificial reproduction of a natural behaviour. I feel that it is impossible for us to escape from this anthropomorphic vision, which is why my animals refer to existing, emblematic species & tradition.

However, I assume and I hope that in the future things won't be so caricatural. We have reached the posthuman step and it is also possible to consider, like Bostrom, that animal and human species in its current



**France Cadet**

"Robotic dog skeleton anatomy" drawings made up of dots, 70x100cm, 2008 © France Cadet

form does not represent the end of our development, but rather its beginning...

**Do your animals have gender specific traits or are they beyond gender in the post-human meaning of the word?**

With the contraception and the in vitro fertilization, the female body has been freed from the biological destiny of procreation. Genetic engineering and cloning are now reinforcing this dichotomy between human sex and procreation, between gender and its cultural and social role. The physical bounds of gender stretch the limits of Mother Nature. Still referring to Donna Haraway's vision of cyborg, in this post-human world, biological or natural gender no longer determines the cultural and social roles of a person. Although my robots have characteristics referring to the natural world, they don't have specific gender traits so yes, I guess you could say they have gone beyond gender.

**Their shiny, pristine finish strongly contrast**

**with Steve Baker's notion of the botched taxidermied animal so central to the conception of the postmodern animal. Instead they elicit associations with toys, cartoons and cinematic animations – forever perfect and desirable. To what extent do the trophies share characteristics with the original meaning of the word 'trophy'?**

Most of my artworks tackle serious problems but in an ironic and ludic way: funny toys, pleasant games, charming pets, cute machines, sweet robots... I usually seek to build easy recognizable objects or machines and use familiar subject matters in order to rapidly engage an exchange with the audience. These robots provide me once again with scope for a new critical social comment about animal rights, in this case hunting. They are here considered as a sort of burlesque illustration, an ironic allegory. Parody. I am conscious that these shiny robots refer more to toys and puppets than to genuine hunting trophies and that they are far away from the idea of *botched taxidermy* that Steve Baker describes in his book "The Postmodern Animal" but I am



**France Cadet**

"Hunting Trophies" (bobcat, impala, leopard, deer) robots, wooden panels, 2008 © France Cadet

precisely interested in this paradoxical and self-contradictory use of robots – something new symbolizing cutting edge interactive technology – used here for the representation of hunting trophies something old and traditional symbolizing death.

I intentionally worked with the design of cute Japanese-looking robots also because this installation raises questions about domesticity and robots in general, about their quality, their function and their integration into society.

One might ask: Are they different robot's species? How many? Are there rare species? Facing extinction? How are they classified? Are they the testimony of a future world where androids would be facing extinction? Like Frédéric Kaplan in his book: "Machines apprivoisées" (tamed machines), we might also ask ourselves about the place that these strange creatures could have one day in our society. But also... Can we kill robots? With more impunity than animals? Which ones have and will have more value? More respect? More rights? And maybe just.. how can we kill a machine?

All these interrogations about robots are similar to the ones we could pose about animals while watching

traditional hunting trophies. These trophies can be seen as a memento of those endangered *animals* and those *species* which have *vanished*, but also as a token of human victory over technology, a symbolic robotics achievement.

***In y our work Gaude Mihi the rocking robot conjures up childhood associations of imaginative play and fantasy inviting par ticipation. However, the robot is not a compliant participant in the game having a life of its own. Are you in some way inviting the viewer to relive an imaginary childhood in which the strict boundaries between human and animal are less defined or are you acknowledging agency from the side of the animal?***

This little robot which rocks by itself when its owner approaches, might just be seeking to generate its own amusement, therefore removing human participation and redefining the roles of the toy and the player. The action of this toy is not caused by the physical intervention of its owner but uniquely by their



**France Cadet**

Copycat & Schizodog from Dog[LAB]01, 2004 © France Cadet

presence and the notion of generated pleasure is not directed at the owner thus creating a possibly frustrating situation of exclusion. Machines first served us, then they provided us with entertainment and pleasure, and now they seek to "rejoice in themselves". It also relates to those virtual games which are more and more ubiquitous. We now live in a disembodied world of simulation where artificial communication is omnipresent, where artificial sex and reproduction have replaced natural procreation and relationships. I ironically named this toy "Gaude Mihi" from the Latin expression which literally means *rejoice in myself (entertain me, give me pleasure)* and from which the French term *godemiché* (dildo) is supposedly derived.

***Do you find there is a conflict between your Interest in robots as potential independent agents and your views on animal rights?***

Firstly let me give my position about animals rights. I don't have a Manichean, or what I consider as an extremist vision concerning animal rights or their use for scientific experimentation. Peter Singer argues that because animals have the ability to experience pain and suffering, they should be afforded the same moral considerations as any other sentient being. We can say he liberated animals, but I don't subscribe to his

extreme utilitarian vision, however I agree with the fact that the use of animals in medical research should be regulated in accordance with the principle of utility and I condemn animal husbandry and intensive breeding and it is not because animal experiments in medicine are more legitimate that we can treat animals anyway we wish even if according to Cohen, *the happiness of the beneficiaries of the medical research far outweighs the pain of the subject*. Hunting cannot escape our responsibility and although stripped of any principle of efficiency or profit, we cannot legitimize it by any principle of utility. I would dispute the necessity of inflicting pain or other forms of cruelty on animals and I do question the right of human power over life or death of animals. I don't however subscribe to utilitarian or antivivisection movement, I feel rather closer to a less radical group such as the "reformist animal welfare movement".

As to robots, even if they could be considered as potential independent agents, they are not yet generally regarded as pain-feeling machines and moral agents. I refer to real pain and the ability to have moral considerations, and not to an artificial reproduction of a living beings' sensitivity. Even if it's a subject I evoke in my robot installations it is still fiction, a futuristic projection. These themes are expressed metaphorically and treated with irony. As long as machines fail the



**France Cadet**

"Gaude Mihi" self-rocking robotic dog, 2008 © France Cadet

Turing test, I don't feel that we need to give them any "rights"... ultimately, *killing* a robot is not considered as a crime. An ancestral fear of machines is the lack of control over our own artificial creations. Whether Asimov's three laws of robotics or the recent "code of ethics" for machines published by an international team of scientists and academics, it is more about a consideration of our own safety than a moral position concerning machine rights.

All things considered I don't see any conflict between my interest in robots as potential independent agents and my views on animal rights.

***What are the reasons for your choice of I-Cybie robots as opposed to other technologies on the market taking into account that they are not capable of autonomous learning and have a limited amount of artificial intelligence?***

As I intended to build multi-robots installations, the original reason of my choice of using I-Cybie robots was the price. It is ten times less expensive than Aibo (2500/3000\$), Sony's robot dog which is the most evolved and accessible robot dog available on the market. Aibo is a genuine adaptive and learning robot coming with an easy-to-use programming software whereas the ones I use are more similar to toys that haven't been designed to be reprogrammed, this implies that I have to operate on them and perform hardware and software modifications, this has become perhaps, the most important aspect of the creative process.

If I hacked them and spent a long time writing programs I could provide them autonomous learning and artificial intelligence capabilities like Aibo (of course there would be a limitation due to the less numerous and powerful sensors on I-Cybie in comparison to Aibo camera tracking, voice recognition, encoders feedback..). but indeed this is not the point. In Dog[LAB]01 for example, I did not seek to build robots with artificial intelligence and interactive capabilities because I did not want the audience to focus on the interaction with these robots, but rather on the specific behaviour of each species, on the narrative produced by their program and behaviour. Despite the fact that my modified robots still look like plastic toys, people are caught up in emotional reactions and anthropomorphic attributions. They are convinced that these robots are responding to them, yet they are just executing a routine and have pre-programmed behaviour. This audience feedback is precisely a part of the artwork and something I am looking for in the viewers response. The interactive or technologic capabilities of my robots must not supplant their poetic reality.

***Your animal heads in Trophies and Gaude Mihi are differentiated through species specific patterns and morphological modifications but otherwise they seem generic. Do you regard these heads as part of a pack or as individuals?***

In Dog[LAB]01 all robot animals have at least 50% of dog in their genetic make up and that's why

they all still look like - more or less - a dog, the most emblematic of pets.

My aim was to create transgenic pets no longer confined to the laboratory but who have entered into everyday life. One can find the perfect pet, half cat half dog, or a robotic cat watching TV. They all have specific characteristics but at the same time they seem standardized and belonging to the same family. In the following installations, Dog[LAB]02 and the Hunting Trophies, I pushed the concept of membership even further. In Dog[LAB]02 the living beings of a same specie are not only identical but are also clones, which erases the diversity, the differentiation, the *multiplicity* and the *unitary individual* of these animals-robots such as Deleuze and Guattari describe it in "A Thousand Plateaus".

In Hunting Trophies, as I previously explained, although these animals seem to belong to different species, they have generic characteristics and seem, effectively, to be part of a pack. I am particularly interested in this standardization of species exhibiting common traits. It expresses a predictable decreasing biodiversity, a kind of reverse evolution.

***How do you see your future work developing? Some of your work investigates interactions between robots as in Do robotic cats dream of electric fish?, others explore possible interactions between humans and animals. Then there is also the possibility of robot killings...***

A central concern in my work is the relationship between humans and animals and I think I will keep on investigating this field. I also wish to explore this question of post-human and new life forms, to think about the boundaries between robots (biorobots) incorporating more and more bionics engineering, and living beings incorporating more and more technology such as in Kevin Warwick's experiments. I am interested in the subject of augmented humanity, the notion of cyborgs, where technology can be envisaged as an extension of our body, an enhancing prosthesis such as Marshall Mac Luhan described it.

I will doubtlessly continue to treat these subjects metaphorically but I do feel like building larger scale objects to escape this allusion to toys, to confront the audience with life-size sculptures and more immersive installations, or by over sizing animals-robots (I am imagining a 2 or 3 meter high cat-like trophy).

### ***What are currently working on?***

A life-size anatomical model of a sheep made out of resin. Half the body will show the internal body with the real organs of the animal, and the other half will exhibit the outside body of a sheep-robot. I want to explore where the machine starts and the human or animal stops. I choose a sheep to symbolize animal

breeding industry but also to refer to Philip K. Dick's vision in our future world where robotic pets – in this case a sheep – have supplanted real pets.

I'm also working on several different drawings made up of dots, similar to old medical or anatomical charts, but depicting robots. I have already completed two such drawings "robotic dog acupuncture chart" and "robotic dog skeleton anatomy". I would like to gather all these drawings, documents and theoretical texts in sort of real fake scientific encyclopedia, similar to a CD-ROM I made several years ago named "Les crédibilités scientifiques" ("scientific credibilities") which offered an inventory of different mice stocks available for sale, some showing a pathology some not. This classification, usually used by laboratories, followed a scientific demonstration based on real mathematical, physical, chemical and biological laws, in order to prove the existence of imaginary mutant mice. Indeed it was a kind of ironical sophism, which pointed out the esoterism of scientific discourse which limits the perception of the uninformed public, who are therefore unable to evaluate the credibility of scientific speeches. I would like to do the same thing with robots raising new questions about this post-human world.

**France Cadet** was born in 1971, is a French Artist whose work raises questions about various aspects in science debates: danger of possible accidents, observation of animal and human behaviour, artificialisation of life, side effects of cloning... She has run several robotics courses for many years now and teaches robotics at Fine-Arts School of Aix-en Provence. She first studied sciences before coming to fine arts. Her work meets those two interests. She had shows in Tokyo, ARS Electronica Linz, Lille2004, ARCO 04, Roger Pailhas gallery, La Vilette and Palais de Tokyo. She was awarded the VIDA 6.0 competition in Madrid (1st Prize) and Digital Stadium Awards in Tokyo (1st Prize). MEIAC, the Badajoz contemporary art museum, Spain, bought from her a robotic piece.

For more information please visit:  
[www.cyber-doll.com](http://www.cyber-doll.com)

**France Cadet** was interviewed by Antennae in Winter 2008  
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