

## Meeting with a Brazilian 3D Modeling Artist

### **DOROTHY BALLARINI: FROM PORTO ALEGRE TO LONDON, A THREE-DIMENSIONAL ART**



*3D Modeler and Character Designer, Dorothy Ballarini sculpts universes where creativity comes to life. Originally from Porto Alegre, Brazil, and now based in London, she blends her cultural heritage with a decidedly modern approach to digital art. Through her works, she shapes creatures and textures with remarkable skill. In this interview, she reflects on her journey, her inspirations, and her vision of the profession.*

#### **Can you tell us about your journey and what led you to work in digital creation for cinema?**

I started my journey in 3D during my studies at the Federal University of Rio Grande do Sul, in Brazil. Interestingly, my initial training was in fine arts, which, in theory, has no direct link to what I do today, although many people think otherwise. In reality, it wasn't a technical foundation that led me here, but rather my love for drawing, which I developed long before university. My mother, the most influential person in my life, was also an artist. She's the one who taught me to draw and to love art, and that artistic foundation continues to influence my work today.

My father, on the other hand, is an animal lover. We grew up surrounded by all kinds of animals. We never had to ask for permission to adopt a new one—it was just the way we lived. Cats, hamsters, birds, horses... we probably had them all at some point. This constant interaction with animals had a profound impact on me. I learned animal anatomy, behavior, and personality simply by living with them and observing them. This turned out to be invaluable in my career, as much of our work in cinema relies on a good understanding of animal references to create believable creatures.

I was also very close to my brother growing up. Thanks to him, I became interested in video games early on. We played together constantly, and it was him who sparked my interest in the digital world. My attraction to computer graphics and interactive environments really began with these shared moments.

During my studies, I was lucky enough to have Adolfo Bittencourt as a professor, an incredible mentor who played a key role in my artistic development. Under his guidance, I participated in a collaborative project with the university's paleontology department, where we digitally reconstructed dinosaur specimens from South America. This experience really opened my eyes to the narrative possibilities of digital art, and I'm very grateful to Adolfo for putting me on this path.

After graduating, my first professional job was in video game development. I joined a Brazilian studio that was later bought by Ubisoft, which gave me the opportunity to work in France for a year. It was during this period that I was recruited by the MPC studio, which was working on *Prometheus* and *World War Z* at the time. They transferred me to London, and that marked the beginning of my career in the film industry, opening a new chapter in my journey.

### **Is there an artist or a work that has particularly influenced your creation?**

I admire many people. I'm constantly learning from them, but what keeps me in this profession is mostly the relationship I have with the work itself. I believe I have a good sense of detail. I always try to understand the essence of a creature : its shape, its function, the way it interacts with the world around it.

What inspires me the most is nature. There's an immense beauty in how living beings are constructed, how they move, and how perfectly adapted they are to their environment. I've always been fascinated by anatomy and movement, whether it's animals or humans. I also love dance for this reason : it highlights the precision and grace of the body in motion.

When I create, I simply try to observe and learn from nature. I know I'll never reach its level of complexity or perfection, but the challenge of trying to understand and capture even just a small part of it is what motivates me every day.

### **What are the main companies you have worked for or are currently working with ?**

Over the years, I've had the chance to work with various studios around the world. I started my career at Southlogic, which was later bought by Ubisoft. I then moved into the visual effects industry, working for studios like MPC, Method Studios, Cinesite, Double Negative, Worldwide FX, Industrial Light & Magic, and Zoo VFX. Currently, I work at Framestore.

Throughout my career, I've specialized in creature creation : whether it's modeling, texturing, concepting, or a bit of all of that. Today, as a creature supervisor, I'm less hands-on than before. However, I still work closely with a team of artists with diverse skills to bring creatures to life in many feature films.

### **Do you approach a new project with a specific process, from the initial idea to the final render?**

In cinema, even as an artist, we rarely create a creature entirely from start to finish. At least, from my experience, that's not typically how it works. Each stage of a creature's creation is handled by specialized artists. That said, many artists, including myself, create complete creatures for personal projects, allowing them to explore the entire process from concept to final render.

In my professional career, I've mainly worked as a modeler and texture artist. The development of a creature in a film production pipeline is a collaborative effort, going through several key stages. It all starts with the concept phase, where an artist defines the visual direction of the creature. Then comes the modeling phase, often done using ZBrush, a digital sculpting tool that mimics clay. Once the shape is approved, the model needs to have a well-organized structure to deform correctly during animation. An animation technician then adds an internal skeleton and muscles to simulate realistic movements.

Meanwhile, a texture artist unwraps the model in 2D to paint details like skin, color, etc. This is done using a method called "UVs," which helps position the textures correctly. Afterward, the model goes through a stage where lighting and visual effects are combined to define the final appearance of the creature. Once the model is prepared and textured, it's ready for animation,

followed by a step that simulates secondary movements, such as muscle vibrations, breathing, and the movement of tissues and fur.

Each discipline works closely together to make the creature believable and seamlessly integrated into the world of the film.

### **What software do you use?**

For modeling, I mainly use ZBrush and Maya. ZBrush is my go-to tool for sculpting : it's extremely intuitive, perfect for exploring shapes and fine anatomical details. Once the sculpture is approved, I switch to Maya for topology, UVs, and all the technical modeling tasks. For adding textures, I use Mari and Substance Painter. Mari is ideal for painting in very high resolution, while Substance Painter allows me to quickly test different versions and get a preview of the render.

I'm not a specialist in the final appearance of models, so I usually don't do the rendering myself (I know I should do it more often). When I do, I use Solaris, a tool within Houdini designed for scene setup and lighting. It allows artists to create scenes, add materials, light them, and generate final images, all without permanently modifying the original elements. It's increasingly used due to its flexibility and integration into current production methods.



(Creature created for the film "Jurassic Park")

### **What has been your most complicated creation, and why?**

I don't think one particular project was "the most difficult" in itself. What's truly challenging in this field is the constant need to learn, especially when switching disciplines or even specialties within your own job. In reality, there's rarely time allocated for learning during production, so you have to constantly adapt, often in real-time.

As a modeler, you can specialize in several areas:

- Hard-surface modeling, which deals with mechanical objects like vehicles or weapons;
- Creature modeling, which involves organic shapes and a good understanding of anatomy;
- Digi-double modeling, which involves recreating real people accurately;
- And facial modeling, the most technical of all, as it requires building an expression system based on the FACS (Facial Action Coding System).

FACS breaks down facial expressions into micro-movements called action units. These are subtle muscle movements that, when combined, give rise to complex emotions. It's not something you can just observe and replicate. You need to construct these shapes, test them, adjust them, and refine

them with experience. For me, facial modeling has been the most technically demanding work I've done on several projects.

Today, as a creature supervisor, the challenge is different. I lead extremely talented artists from various disciplines. My role is both technical and creative, and I have to ensure that every step of the creation pipeline runs smoothly and coherently. I rely heavily on my experience, but I'm not an expert in every field. I don't have the knowledge of an animation or special effects specialist with over twenty years of experience. That's why I have to constantly keep myself updated on new work methods, technologies, and industry trends to make sure everything functions properly.

**Do you have a personal project or creation that you are particularly proud of ?**

I don't have a personal project that I'm particularly proud of, mainly because I've never really had the time to take a piece from start to finish. It's something I'd like to do one day, and I hope to have the opportunity. That said, there are a few creations I particularly appreciate, like [this one](#) and [that one](#). I like them because I think they have a certain elegance in their form and simplicity.

When I work with the female form, I often like to add a touch of what could be considered "ugly" or strange according to traditional standards. I enjoy the challenge of finding beauty in what is unusual or imperfect. There's something deeply fascinating about this tension between what is perceived as beautiful and what lies just outside those norms.

**You often work on big-budget films. How is the collaboration with the production teams and directors?**

As an artist, I rarely had direct access to directors or producers, and even today as a supervisor, it's still very limited. This kind of communication is typically managed by the visual effects supervisor. Directors have very little time, so when they give feedback to the team, it has to be clear, precise, and conveyed through a single voice. That said, I've had the opportunity to collaborate more directly with Gore Verbinski on *A Cure for Wellness*. At the time, I was working on the concept for the distorted face of Dr. Heinrich Volmer, played by Jason Isaacs, and I was able to have brief exchanges with the director during this creative phase. Today, I attend calls with directors, but my role is mostly observational, unless my input is needed.

**Do you think AI and new technologies will change the way creatures are designed in cinema?**

In the short term, I don't see artificial intelligence as a major threat. What it produces still resembles AI : it often lacks spontaneity, and the forms often feel like a mix of what already exists online. There's still a real need for human intervention to bring a character to life. Realism comes from imperfection and nuance, those organic accidents that AI, for now, struggles to reproduce.

That being said, I think things will evolve. In the long term, AI will become more integrated into the production pipeline, and we'll need to adapt. But I don't see it as a threat ; I think it will simply become an addition to our creative toolbox. We'll learn how to use it, and I believe we'll be allies rather than competitors.

**What universe would you dream of exploring in your work?**

I would love to work on a project like *Avatar*, with an entire ecosystem of completely new creatures, each being a kind of rebirth or fusion of ancient species, magnified by human imagination. This type of project doesn't just involve creature creation ; it also requires world-building at every level. It would be a dream to participate in the artistic direction and the design phase, from the very beginning, when everything is still fluid and malleable.

**What are your upcoming projects?**

For confidentiality reasons, I can't share the specific titles yet, but I'm currently working on two very exciting feature films. One is the sequel to a famous fantasy musical, filled with stylized characters and magical environments. The other is an adaptation of an original, humor-filled novel,

featuring a gallery of quite unexpected characters. These are two very different universes, but each offers a real creative pleasure.

**Where can we discover your creations and follow your updates?**

You can find the films I've worked on through my [IMDb](#) profile. I also occasionally share personal works on [ArtStation](#).

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[Interview conducted on April 3st, 2025 ]