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## 'Dune' Sound Experts Bring Sci-Fi 'Realism' to Outer Space

By Tim Gray



Sound is one of the most important and misunderstood elements in filmmaking, and sound for sci-fi films adds another degree of difficulty.

"Dune," directed by Denis Villeneuve, boasts two supervising sound editors, Mark Mangini and Theo Green, who worked on the film for 18 months.

"Science fiction is always complex," says Mangini. "Theo and I called it 'universe building.' It's a blank slate because nothing — people, machines, technology — exists, so all of it has to be invented. In the 'Dune' universe, we have ornithopters, dream sequences, the Voice, this palette of unknown things that make sound, which we had to invent from scratch.

"Denis's mandate was to ground it in an organic reality. He didn't want it to feel science-fiction-y. He wanted you to watch film and feel those sounds existed in acoustic reality. Theo and I had a philosophy: FDR, or Fake Documentary Realism."

The duo and their team gathered 3,200 individual sounds and were working with 750 channels of audio.

Villeneuve told them to "compose with sound." He wanted to blur the distinction between score and sound design. Green says, "Mark and I, and the key sound collaborators, are all musicians as well and we see sound as an extension of that. Where is the dividing line? Why can't Hans [Zimmer, the composer] have a finger in the sound design, and we have a finger in the music — to break down traditional barriers? Denis filled us with the passion for a fusion to happen." Warner Bros. and Legendary encouraged pushing boundaries.

Another challenge was to differentiate sounds on various planets. Mangini says, “The planet Caladan has animal life and water, so we used sounds of nature and water dripping, for example. That’s in contrast with Arrakis, where there is no liquid or water sound. As we developed the voice of the worm, we started with some lion-tiger-whale growls, but Denis said there is no moisture on this planet and the esophagus of that worm is the driest place on the planet; he kept imploring us to make the driest sound possible.”

In addition, the team used sounds that were deep, metallic and reverberating for the Harkonnens’ world, Giedi Prime.

Green explains, “The Harkonnens are an Industrial Age gone wrong. For interiors, we had horrible sounds deep in the background. I don’t know how many people will pick up on this, but the sounds were subtly establishing that this planet is deeply depraved and nightmarish.”

The trickiest element for the team was perfecting the **Voice**, a tool used by **Bene Gesserit**, a spiritual-political group of women who can use their voices to get others to do their bidding. It had to sound other-worldly, and not like something coming out of a control booth. “We spent a full year and a half refining it,” says Mangini.

Paul (Timothy Chalamet) is learning how to use it, at first with difficulty, and all we hear is a deep rumbling. But as he learns The Voice, the sound team wanted to convey that he was summoning the power and force of his ancestors and the **Bene Gesserit female tribal leaders**.

They recorded Marianne Faithfull and actors Jean Gilpin and **Ellen Dubin** (“**croaky, smoky female voices**,” says Green) saying lines of Paul and Reverend Mother (Charlotte Rampling) and merged the actors’ voices with those of the three women.

The audience initially hears the onscreen actor’s voice, and then the three women’s voices are layered. When Paul is not proficient at The Voice, these other elements are out of synch.

The sound team started early on the film, and shared their work with Villeneuve and editor Joe Walker. Green says, “When he’s cutting the film with so many sounds that don’t exist in the real world, it was useful to Joe to have those first iterations of sound.” As a bonus, this resulted in saving money, such as Walker’s realization that they needed less VFX work than expected in some sequences.

Mangini and Green each stressed the idea that sound is the result of teamwork. Among the many top pros working with them on “Dune” were sound designer Dave Whitehead and re-recording mixers Doug Hemphill and Ron Bartlett. The result is Oscar-worthy work. Seriously, what other film this year provided sound for a worm’s esophagus?