

ALL TOMORROW'S PARTIES

The secret to “deep time” projects that do good for future generations

By Ephrat Livni • January 12, 2019





The past is the evidence on which the future rests.

If you don't appreciate history, you won't be able to predict the future. Seeing ahead clearly requires looking backward.

That's how "deep time" projects come to exist. Those who work on behalf of coming generations aren't thinking of the future in an abstract vacuum. They have an expansive sense of time that includes all the yesterdays and tomorrows, and they build upon the past.

Take, for example, the [Svalbard Global Seed Vault](#), which safeguards 10,000 years of agricultural diversity from around the world. The vault is a global effort to ensure the future of food diversity in light of lost knowledge. It's "a legacy we can't leave to chance," according to the vault's creators. They explain, "Throughout the history of agriculture, farmers have generated a seemingly endless diversity within crops, discovering ingenious solutions to local challenges... Crop diversity allows farmers to feed the world. But this diversity is not in fact endless. It is disappearing, and once lost, it's lost forever."

Likewise, the [Long Now Foundation](#) fosters long-term thinking with various projects, like the

and the creation of a library [preserving 1,500 world languages for posterity](#). In a similar vein, the [World Arctic Archive](#) is a “future-proof” data storage vault in an abandoned mine in Norway, designed to hold precious works in safekeeping for all of time. Only by understanding the value of what has been lost from the past—and what still remains—can people be motivated to save information for the future.

Some of these efforts, like the [Archangel Ancient Tree Archive](#), may even help to save the Earth itself. The project takes a futuristic approach to reviving the world’s most massive old trees, the vast majority of which were felled more than a century ago. These are the coastal redwoods best equipped to sequester carbon and fight accelerating climate change. They were cut down for timber by industrialists who took a short view, thinking they’d make great furniture.

Because these redwoods lived for 2,000 to 3,000 years and reached up to 400 ft (122 m), contemporary arborists believe they have super-strong immune systems that will make them especially resilient and effective as the world’s temperatures change. “We’re looking for the biggest, oldest trees with the strongest immune systems who can survive in current climate conditions. We know something is special about them,” says David Milarch, founder of the project.

By using cloning techniques to propagate saplings from the basal roots of stumps once thought to be dead, Milarch and his fellow arborists are now creating redwood “super groves” to grow in the temperate climates that didn’t originally host these kinds of trees. As California’s coastal region grows hotter and less foggy, making it more difficult for the redwoods to thrive, new trees with a 3,000-year lifespan are being planted in Canada, Australia, New Zealand, France, England, and Wales, where conditions are now more conducive.

In order for this project to happen, the arborists involved had to understand the past and the future, appreciating what these dead stumps represented when they were alive and what they might do if naturalists could figure out how to revive them. Milarch says this “assisted migration” process requires lots of patience: It takes more than two years to turn a basal sprout into a redwood sapling ready for planting and constant care when the young trees are first growing in their host countries. Then it will take centuries for these redwoods to grow to their full potential. He will be long dead before the project’s success can be measured.

But Milarch knows it’s worth the work and the wait because these trees could literally help save the Earth. And it was his understanding of the past that made the project happen. He is keenly aware of history and the dangers of taking a short view. “It was just greed,” he says of the reasoning behind cutting down the massive growths previously. Now, he says, “It’s as if the dinosaurs were being brought back to life.” And these arboreal dinosaurs could help ensure that life on Earth, as we know it now, continues for millennia to come.

As Virginia Berridge, of the London School of Hygiene and Tropical Medicine, argues in a 2016 paper in the [International Journal of Drug Policy](#), “history is far from moribund.” It’s the evidence upon which the future rests, she says, so we must look back to look forward.

No crystal ball is needed to see what tomorrow will bring. All you have to do is take the very long view.

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