

# 333Hz

Antoine Bertin\*

Artist

## ABSTRACT

333HZ is an art installation by Antoine Bertin, translating deforestation data into a sensorial experience through sound, visuals and scent.

**Keywords:** Art, Deforestation, Sonification, Experience Design, Data Sculpture, Multisensoriality.

## 1. PROJECT DESCRIPTION

If a tree falls in a distant forest, with no one around, does it produce a sound?

According to the data collected by Global Forest Watch since 2001, 20,000 trees have disappeared every minute on average since 2001. A tempo that has never ceased to increase. This vertiginous rhythm of tree loss, although caused by humans, seem to escape our grasp and remain beyond the reach of our senses.

What would we feel if we could each tree that falls in the world ?

The beat per minute (also known as BPM) is the unit used in music to measure tempo. By transposing deforestation to a musical scale, artist Antoine Bertin invites us to listen to the scale of deforestation.. metronomes are installed on a pile of logs, arranged similarly to how they are laid on the edge of forest roads once fell. Each of these metronomes beat against a log according to the rate of deforestation of an old-growth forest. Each pulse that the visitor sees and hears corresponds to a fallen tree. The composition scans through data ranging from year 2001 to 2022.

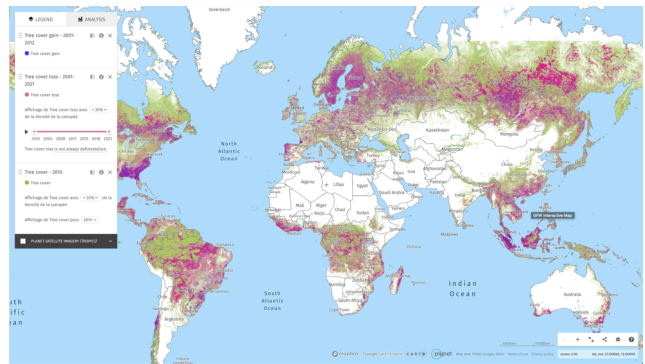
The average speed of global deforestation is 20000 BPM. This tempo is too fast to be heard has distinct sounds by the human ear. If we could hear each tree being fell around the world, we would perceive it as a continuous sound, a frequency of 333Hz... This frequency currently consistently increases.



## 2. ARTIST

Antoine Bertin is a European artist working at the intersection of science and sensory immersion, field recording and sound storytelling, data and music composition. His creations take the form of listening experiences, sound sculptures and audio meditations on the realm of the living. His work has been presented at Tate Britain, at Palais de Tokyo, Serpentine Gallery, KIKK, STRP, Sonar+D, CCCB Barcelona, and more. He produces a quarterly show called “The Edge of the Forest” for the web radio NTS.

## 3. DEFORESTATION DATA



Sonification is the art of translating data into an audible experience. The work proposes a sonification of data selected from Global Forest Watch (<https://www.globalforestwatch.org>), an online platform that provides tools and data for forest monitoring. Not all tree cover loss observed by satellite and presented by GFW corresponds to deforestation. 333Hz focuses on primary forests, the disappearance of which constitute an irreplaceable loss of biodiversity, carbon sink and native culture. The work presents data from 20 primordial forest around the world monitored from 20001 to 2021. Tree cover loss indicated in Hectares per year by GFW are converted to Trees disappearing per minute using an average tree cover approximation of 500 trees per Ha. The average “deforestation” tempo thus obtained per region and per year are translated into MIDI signal using Max/MSP and connected to 20 MIDI controlled actuators.



## 4. Data Experience

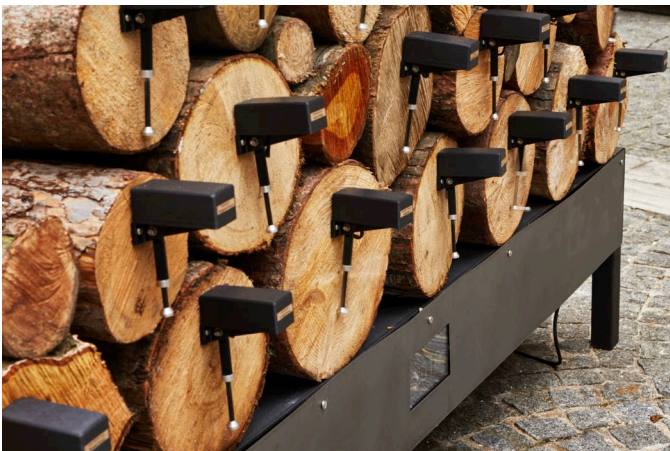
### 4.1 Data representation

Each forest selected for the experience represents a facette (driven by agriculture, fire, urbanisation, eviction etc.) of the multifaceted problematic of global deforestation. These locations were also chosen to create a panorama of all continents (Antartica excepted) to compete with the narrative that deforestation would only occur in tropical regions.



### 4.2 Multisensoriality

The objective of 333Hz is to communicate the scale and complexity of global deforestation. The work seeks to create an impact by translating data into musical, sculptural and sensorial languages. Each tree trunk of the installation has a different diameter and density to create contrasting sound texture. The scent liberated as the metronomes hit the wood immerses the visitor in an echo of a forest space. Each metronome show the name of the region they are beating the data of. The year represented by the installation is indicated by a screen that has been incorporated in the a metallic structure holding the tree logs together



## 4. CONCLUSION

333Hz is an art installation seeking to communicate environmental data with a diversity of audiences. It achieves the latter through creating its own metalanguage unfolding in space, time, sound, scent and material. Based on accurate tree cover data from Global Forest Watch, it is through carefully curated approximations and ornaments that the objective of the piece: to present data with objectivity while communicating the sheer scale, complexity and emergency of the subject of deforestation .

### REFERENCES

1. <https://www.globalforestwatch.org/>
2. <https://www.antoinebertin.org/333hz>
3. <http://www.duendepr.com/actualites/tag/antoine-bertin/?lang=en>