(ex)tension by Fabrizio di Salvo in collaboration with reConvert

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1. PROGRAM NOTES

The extension of man

McLuhan appears to distinguish two broad classes of extensions of the organism: extensions of the body and extensions of cognitive functions, which include functions of the senses, central nervous system, and consciousness. By extensions of the body, McLuhan means extensions of parts of the human body that are used for acting on or protecting oneself from the environment, or regulating bodily functions. Specifically, they include the limbs, teeth, and bodily heat-control systems (including the skin). The senses, the central nervous system, and higher cognitive functions are not defined as parts of the body. The basic types of extensions of the body, McLuhan claims, were introduced during the mechanical age. Clothing is seen as an extension of the skin, to extend its function of bodily heat control and protection. The wheel is seen as an extension of feet in rotation. Other mechanical tools and utensils, such as jars, matches, and money, are also analyzed as technologies that extend storage and mobility functions. Mechanisms, generally, are analyzed as specialized, segmented amplifications of bodily postures and motions. What makes a mechanism is the separation and extension of separate parts of our body as hand, arm, foot, pen, hammer, and wheel. And the mechanization of a task is done by segmentation of each part of an action in a series of uniform, repeatable, and movable parts.

Media are analyzed by McLuhan (1964) as extensions of the senses, particularly those of sight and sound. Thus, the radio and telephone function as long-distance ears, and visual media, including writing and print, are extensions of the visual function. Electric media are analyzed, moreover, as an extension of the information processing functions of the central nervous system. That is, electric media take over functions of information management, storage, and retrieval normally performed by the central nervous system. Consequently, a human being in the electric age is quite literally, in McLuhan's analysis (1964) "an organism that now wears its brain outside its skull and its nerves outside its hide" (p. 64). Consciousness, by which McLuhan (1964) seems to refer to creative cognition and higher thought, and which he appears to see as distinct from the central nervous system, is the final form of extension McLuhan envisions. The extension of consciousness is not so much performed by conventional, analog electric media as it is by digital computers. McLuhan envisioned an era in which human intelligence and creativity would be automated and translated into information functions performed by machines.

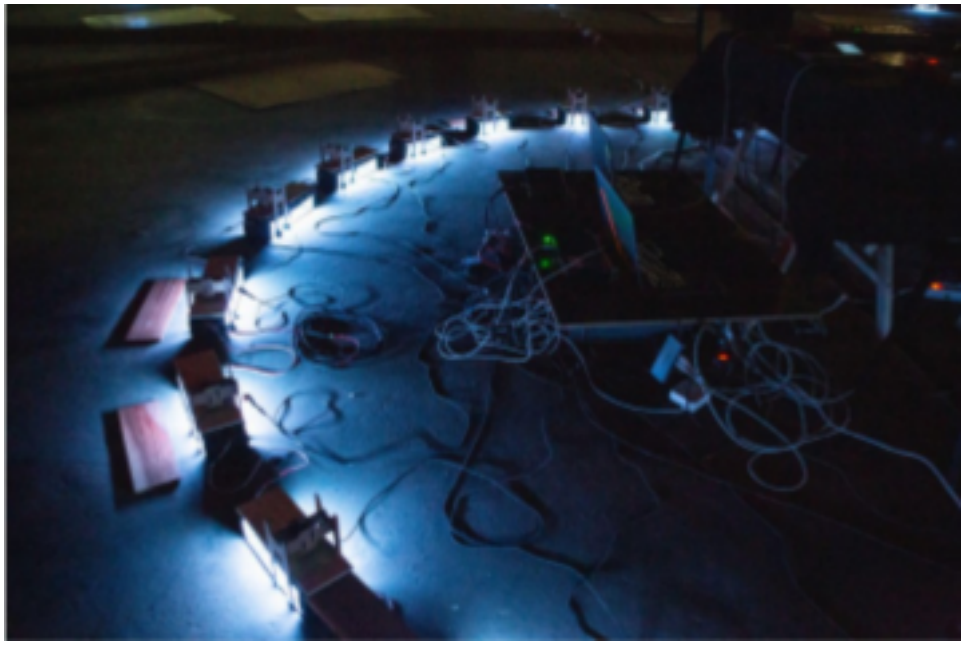

Fig. 1. (ex)tension's setup

2. PROJECT DESCRIPTION

Our work is based on the theory by Marshall McLuhan the extension of man. The idea, in its most basic form, is that technical objects extend the human organism by replicating or amplifying bodily and mental abilities.

Our idea starts from the necessity to investigate space, to explore its features, finding the potential in acoustic properties and using them as a starting point for our research. How is it possible to create a three-dimensional and analogue sound system? How are we able to work with instruments that can move sound in space? Taking advantage from the use of customised industrial items, we will have the possibility to create three-dimensional audio images controlled and designed in real time by the performers. The concept that interests us is the single percussive impulse as music creator. We can change surface, speed of execution but the impulse is at the core of every percussive action.

Solenoids are our artistic medium and the interesting aspect will be the relationship between us as human performer and the possibilities that arise through our interaction with a complex mechanical instrument. Thus we see in this instrument an extension of our percussive possibilities. Our work will base on the theory by Marshall McLuhan the extension of man. The idea that technology is an extension of the human organism is encountered regularly in the history of thought about technology. The idea, in its most basic form, is that technical objects extend the human organism by replicating or amplifying bodily and mental abilities.

> "During the mechanical ages we had extended our bodies in space. Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man - the technological simulation of consciousness, when the creative process will be collectively and corporately extended to the whole of human society,

much as we have already extended our senses and our nerves by the various media" (McLuhan, 1964, p. 19).

3. PERFORMANCE NOTES

3.1 *Music Sequencer*

With the help of a specialised Keyboard we will use the possibilities of electronic music production. The idea behind the Sequencer is to have the possibility to detach oneself from the keyboard during the performance in order to change the composition on a material level. A music sequencer is a software application or a digital electronic device that can record, save, play and edit audio files. The audio information can be stored in various data formats such as MIDI (Musical Instrument Digital Interface), CV/G (Control Voltage/Gate) or OSC (Open Sound Control). A music sequencer can be introduced as a plugin with musical instruments or as a standalone unit. Hardware-based musical sequencers, as in our case, are generally lightweight and portable. Modern sequencers are frequently in the form of a keyboard, and can help in controlling and composing music

3.2. *Arpeggiator*

With this technique it will be possible for us to exceed the percussive speed of our own possibilities. This boundary between the human possible and the transition to the machine is an important part of our compositional approach.
An arpeggiator turns whichever notes you play into a running pattern, usually playing one note after another in a repeating figure. Imagine holding down a chord of C major, for instance, which is made up of the notes C, E and G. Without using an arpeggiator, you'd simply hear these notes as a sustained chord. But with an arpeggiator inserted as a MIDI effect, each note plays in turn—one at a time —at the speed of your choice.

3.3. *Dadamachines*

Dadamachines is a small berlin based company run by Johannes Lohbihler. The automat toolkit dadamachines is a plug & play MIDI-controller and accessories kit that allows us to build our instrument. The center of each toolkit is the automat controller. This is our translator from our fingers to the edge of every Solenoid. The automat controller has 12 universal DC outputs to connect motors, solenoids, LEDs etc.

3.4. *Solenoids*

A solenoid is the generic term for a coil of wire used as an electromagnet. It also refers to any device that converts electrical energy to mechanical energy using a solenoid. The device creates a magnetic field from electric current and uses the magnetic field to create linear motion. Common applications of solenoids are to power a switch, like the starter in an automobile, or a valve, such as in a sprinkler system.

Like all magnets, the magnetic field of an activated solenoid has positive and negative poles that will

attract or repel material sensitive to magnets. In a solenoid, the electromagnetic field causes the piston to either move backward or forward, which is how motion is created by a solenoid coil.

4. MEDIA LINK

- Video: https://www.youtube.com/watch?v=hCZ63NLckO8

5. REFERENCES

McLuhan, M. (1964). Understanding media: the extensions of man. [1st ed.] New York, McGraw- Hill.