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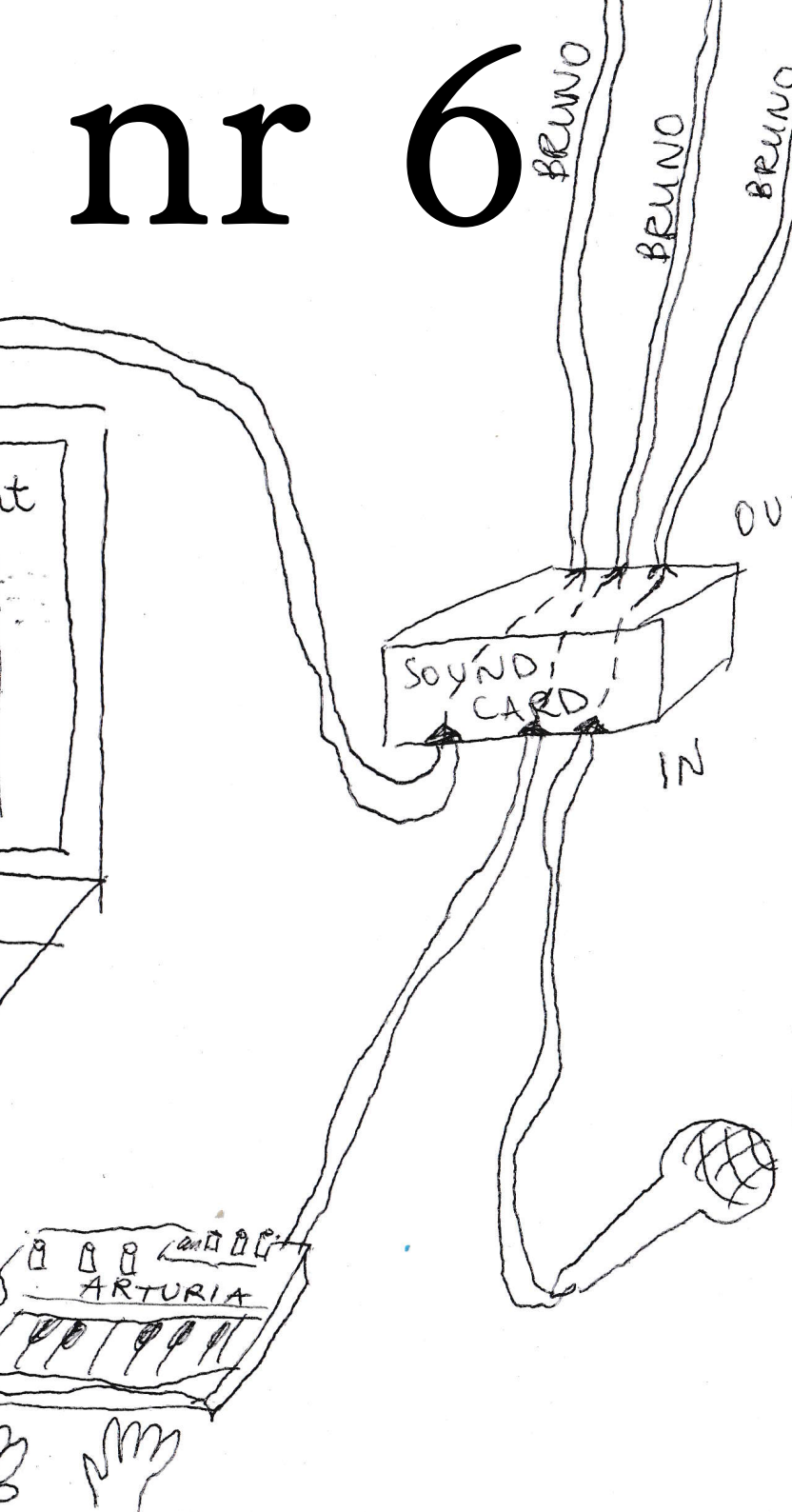*Reflecting Light* is a fanzine about *light* and *light*ing design in the arts.

A report on Gangplank-residency in Budascoop, August 2023, with Bruno Pocheron, Jan Maertens, Liepa (Leo) Kuraite, Henri Emmanuel Doublier and Maureen Beguin.

Text by Niels Bovri

OBSERVATIONS ON LIGHT
FROM A SOUND PERSPECTIVE

Intro: Talking about light

Coming from music and sound design, I followed five lighting designers in a Gangplank & Reflecting Light-residency at Kunstencentrum Buda in August 2023. It seemed a very useful opportunity to come closer to their terminology and seek for common words. Though I often work with lighting designers, I found that I don't share enough language with them, neither enough machines. *Immersive light / Intelligent light / trading light / invading light / singing light / breathing light*. For some of you light-people-readers, some formulations might be not so new as they are for me. But this might also highlight the necessity to involve people with other backgrounds into the discours of light.

The argot, the technical language of light, can facilitate collaborations and a physical (wired) connection with other artists, if shared. The common words about wiring and programming, the dry properties of tools and details about their historical maturation can open up a space for creativity and development.

Funnily, during the days of the Gangplank-residency - practicing a jargon consisting of abbreviations, codes and numbers... - the glimpse of a potential artistic outcome was constantly following us without being named. Like an enigmatic image behind instruction manuals, interface limitations, fire walls and cable bugs. Taking this as a focus in a residency might be a way for a lighting designer to come closer to a personal light plot and understanding light that is not there yet.

But talking about light is also talking about the wind, corn fields, musicians or mosh pits. The urge to combine light with different sources or organic movement is like an engagement against institutionalized event lighting and preformatted solutions. What is it exactly that we want to reach when we, for example, try to connect a video of the wind with a number of gas lamps? Tackling those challenges or "cranking" properties of technical devices feels like composing in a way. It is a manner of rehearsing light, drafting for a painter, choosing a block of wood, imagining a sculpture that is in there but not out there yet. This light, with all its postulations and rusty protocols needs words and to be bespoken before it actually shines.

Where are we when we look at light?

Book Screenshot

> Het verschil tussen een primair op het zien of een primair op het horen gerichte relatie tot de wereld is direct van belang als het gaat om de aparte vraag waar we zijn als we luisteren. Om iets te zien moet wie ziet op een zekere afstand tegenover het zichtbare staan. Dit ruimtelijk uit elkaar en tegenover elkaar zijn suggereert de aanname van een kloof tussen subjecten en objecten, die uiteindelijk niet alleen ruimtelijk, maar ook ontologisch van belang is. De uiteinde–

Working in sound mainly, I was not so much busy with the notion of immersive perception before this residency. As a listener I understand myself in the middle of an acoustic happening – making it hard to believe that I'm listening somewhere at the border of the hearable. A listener is in an acoustic surrounding, to *see* that surrounding requires an active decision to look at it. That is why show-light needs a bigger effort to achieve an immersive sensation for an audience than sound. I understood in this residency that immersive light is a light that tries to embrace the position of the viewer together with the space this viewer is looking at, or even standing in. In that sense the "looking at" becomes a bit more complex. In the case of immersive light I am not taking distance into darkness towards an object that is been lit, I am not looking at something from one passive space in to another active space. From now on the object and the viewer are one. From now on the viewer is part of what she or he sees, of what she or he is looking at. As a viewer of immersive light I can not be other than a partaker. In music the musician and the listener are in fact in the same acoustic space even before the moment a music track has been launched. Sound works like a chandelier over musician and listener.

When Jan Maertens arrived on the first day of the residency, he installed a big chandelier on stage. After half a day of plugging and rigging, the chandelier rose into the grid. "Now something has to happen in this light, otherwise, it doesn't make sense." So he took a chair and sat under his chandelier as a joke. His point was that this light actually is not made to look at, but to be in a situation fed by this light. But it seemed clear to me that this light machine was also very dynamic and impressive to look at as an object.

The chandelier was part of an older work build out of old electronics that are capable of dimming neon gas pipes in a very direct and precise way. But these neons are also able to react with their temperature and intensity on different dynamic inputs like music or video sources. In fact, there is a programmed digital patch, made by Jan, that makes the connection between the dynamic values, captured out of a video, starring a corn field in the wind, and these 20 neon pipes.

The whole point is that the emerging light is rather moving, seemingly reacting to something alive that is commanding it.

Not a dim curve from 0 to 100%, but rather a three-dimensional moving creature. "This chandelier is an attempt to give the opportunity to a viewer to place her/himself in the same dynamic space as the stage. Just like with music". I will describe another installation that featured reflecting light as an example of immersive light in the following chapter as I am temporarily convinced during this project that describing light with words makes sense.

Human Interface

Audio Data

Video Data

Conceptually / systematically organised Data Stream

Organically organised Data Stream

Analogue Realm

Digital Realm

QUEing

Internal Periferials

LAPTOP

External Periferials

Midi Control Interfaces
└ buttons
└ faders
└ pots

MIDI - Comm. Protocol.

TCP-IP - communication Protocol.

Sound Card.

Monitoring Screens

LANBOX

DMX Back UP fader wing.

DMX - Comm. protocol.

DMX - communication - protocol.

Digital realm.

Analogue realm

Dimmers.

Tension / variable. electricity flow. spanning

lamps

electro Magnetistic sliation

Spectator.

EM - sliatiy

PA

Day 2: Intelligent light

"The possibility to use, creates usage". Jan

During the day we had several talks with one of the technicians that was helping us installing the first light set ups. Depending on what we were doing, different topics derived throughout our little chats. One of them was the "time eating aspect" of light. Also, in the rather experimental projects I personally join, light comes late, and takes time. During a creation, music or sound is often needed actively in a studio during the whole rehearsal period. This is not so easy for a lighting designer. The cumbrous character of light technology makes it slow and dominant in time planning. Even if you want to work with something obvious like daylight. Rehearsing with light the whole time is rare. Mounting a show in a theatre is often a shocking experience for me. Suddenly there is light. All is different. All is different and there is no way back. The ultimate concept, and a horrifying idea at the same time, to tackle this problem is intelligent light. An intelligent lamp can move, change colors and focus from a distance.

A few days ago, I had the opportunity to experience a full intelligent light performance in the same space where we had our residency. During the performance I often looked up. The grid looked clean and peaceful. No specials, all was symmetric, very few lamps and cables, tons of light possible on any spot on stage at any possible moment in the show. No cooling down noise while dimming, no buzzing dim racks. Although these systems, with automatic movement, focus and color change, makes seemingly everything possible at low energy cost, still I can totally understand that there is a big resistance against these systems to be a default set up in theatre venues. But no offense, the presentation I saw was clean, fast, the actions on stage were well lit… These systems are legit in the way they can help artists to reconsider colors or directions of light in very little time. The LED technology inside the light projectors also saves electric power. There are tons of possibilities with only one technician needed for programming them. But there is a shiny flip side of the coin.

During our little chats we reasoned that possibilities by themselves also create an urge to use them. "The possibility to use creates usage". We made the comparison with a motor highway. Making them bigger will not make them emptier. The technician that helped us had examples of shows that used energy saving intelligent lights, but the power usage was not less as with traditional light sources. Last but not least; the time and energy saving aspects of intelligent light actually only makes sense when you can leave them in place in the grid and just re-program them with every next project. There is a fear that this tendency kills the habit to rethink the idea of light for each project. The design process would rather turn around and ask the maker how to fit in and use this set up rather than to search for a fitting set up that serves an artistic concept. This last idea is what I think, this residency is practicing; to take what we need in order to see, understand and react. The first vision on (lighting) design and herewith also the version of the full intelligent presentation that I saw, Leo, one of the members of reflecting light, would call "a trade".

Day 3: Trading light.

"There is an open part for the audience. You have to leave a gap." Leo.

The five light set up propositions in this one studio have a body-like character. One is positioned in a corner and sometimes does something like an intense strobe. Another one has cables all over the place hanging down with bulbs at their ends like the sensors of a strange under water creature. Or a third one is just one ufo-like chandelier that seems to have just arrived from a 100 years of travel. These lights are very characteristic.

They are clearly designed to have their own dramaturgy and persona on a stage. They talk, they are something to look at, not something that says we have to look theeeere! You cannot miss it. It is about the lamp first and then about the light it produces! But the more character, the bigger is also the danger of unwanted overpowering the overall scenography and performers. Characteristic light is like an extra player within a stage concept. This light is opposing it's part in the story. It's a piece of art by itself, like a sculpture.

But isn't this always? Actually realistically considered, lighting design most of the time has to deal with a task. What is the light for? What should it do? How can it support or brighten all bodies on stage? Which emotional layer should it provide?… To create one's own signature in this way of working is difficult and also not so much the point in the first place. The personal approach to this kind of work lies in the way how you fulfil this task and how you work together with the team. A good way of hammering out the different interests makes a good lighting design in this case. This is why Leo calls it a trade. 50% of her work as a lighting engineer or designer is a trade, 10% would be making light as an opposing entity and in 40% she would have to trade but with a significant margin for sculpturing specials.

I like this idea of putting those two light making strategies next to each other. It actually highlights the relationship towards an audience. How much do you push, how much do you give or leave as a gap to fill for an audience. Again, comparing with sound, in opera houses there is often the possibility to raise and lower the orchestra pit. On the highest position, the music and all musicians are within the frame of sight. Their bodies and instruments, their behavior and presence become an unavoidable visual aspect of the play. All is in sight, all is loud. That, would be lighting design as an entity in opera terms. On the lowest orchestra pit position, down there where the music is slightly muted and in balance with the singers on stage, the sound of the separate instruments are nicely blending in to each other and the conductor has a clear view over the stage so he can follow the cues by himself,… That would be the trade. "Lower your pit!" Could be a way of admonishing a colleague to not overpower or invade the show with his or her creativity.

Day 4: invading light
"Sometimes I like to be invaded." Bruno

One specific set up in the reflecting light residency allowed mutual collaboration. As a
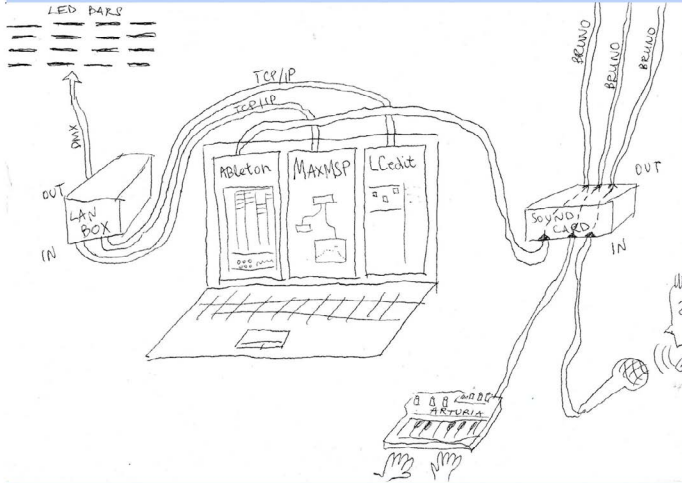
laboratory set up, there was a low hanging grid with 16 LED Bars organized as light outputs. As Inputs, there was an Arturia Microfreak synthesizer and a Microphone. In between there was the software combination of ableton live (for the sound), Max msp (For routing the different dynamics) and LC edit (For light programming with the LAN box). The ins and outs for sound were physically separated towards a sound interface but internally linked with light through Max msp. In this way sound can change or influence light, but a light change could potentially also influence sound.

I understand this set up as an example of a dynamic situation for light and sound. This one dynamic picture can be fed technically as a composition of a visual and auditive surrounding in itself. Apparently, the origins of the Lanbox can be found in the early urge to automate the machinery of green houses and later in mixed media exhibitions and museum set ups. The idea is to have one working animated picture instead of traveling through a list of scenes.

But this system does not necessarily provide an easy way for collaboration. Although a concept for dynamic light would invite to use system strange inputs, it is not said that it is easy. Opening up a system for other inputs like movement, or outputs like video also mean using a common language and providing the proper plugs and adapters in the first place. In a second phase you could think about working together.

But within a technical set up, the signal of another device might feel intrusive or invasive. Your system might change completely in a way that you would never have expected. In music there is a parallel phenomenon that occurs when you synchronize 2 midi devises in their clock. Your device will react and change accordingly. The relationship between those two entities in midi language is literally called "master" and "slave". This relationship I would not call groovy or intuitive, but it is a way to play with each other, rather than together.

Another way to explain what I experienced as "the closeness of open systems" is the fact that the digital patch between software devices can be a construction of a longer process and therefor mega complex. Each time you modify something small to improve, the patch grows. For a digital patch there is no physical limitation. They can grow infinitely. You can imagine an analogue sound studio with endless cables and patch bays. But there is a physical end to it. Full is full. On the edges of a digital patch you could eventually change something, but in its core it is harder to un-/redo on the fly. Not to mention debugging, finding a failure.

On the other side of this cumbersome aspect in programming universe, there is a desire for fluidity, where different work fluxes into each other like melting chocolate. Later that week, just after a coffee and cigarette break, an idea occurred and three xlr cables were rolled out over 10m to connect Leo's sound inputs with Bruno's sound and light outputs. Actually there was not much to it. They both had a matching plug on their interfaces. Both systems were ready for a link anyway. The result was very satisfying I find. Sounds were coming from everywhere, bulbs were humming, dimmers were whiffling,… the space was alive. There was something in the space like, "We can also just connect! No worries".

Day 5: singing light
"Ok! Now we need music, … any music!"
Bruno

5 series of 9 low voltage bulbs (24V / 250 w)

patch board

3 x OUT

3 ch. 1500 w

Sound amp.

XLR

3 x mic in   3 x Audio in

optical   IN

OUT

preamp.

Soundcard

MIDI CTL

DAW

USB

USB
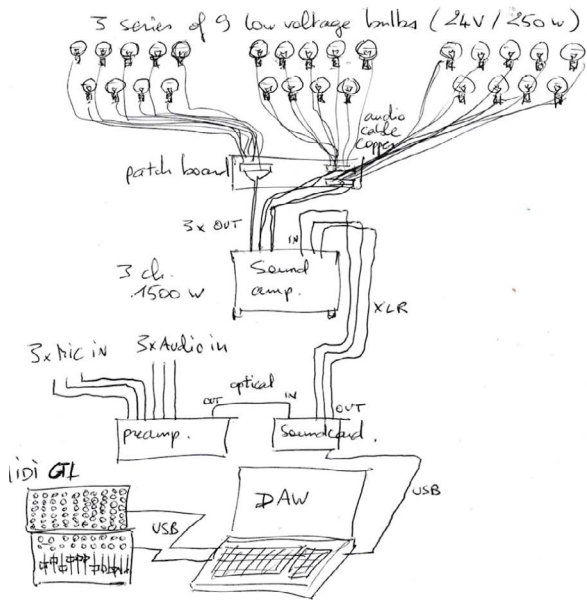
…istic work does not stop where design ends and technology takes over. The …nting designers I met during the residency showed me their habit of building until …d beyond a public showing. A big part of the, mostly solitary, work is to isolate …d overcome technical bugs during set up. But these technical bugs have the …ure of sculptural modifications, and building the own lighting design allows to …actively modify and survey the artistic interest until the very end. Together with the …urge for inter-/active light, lighting design can develop towards a symbioses of an …artistic concept and a technical installation. With active or interactive light, I understand light that is not commanded by a lighting technician following cues that travel through a number of scenes. Instead, an active light set up can react or play within certain connections or dependencies. More than crossfading from scene A to B, active light is a situation that can be connected or fed by the presence of the spectator or by an external factor like sound or movement. The concept does not exist without challenging the traditional ideas of event technology. Critically viewing borders of show technology often becomes part of a contemporary lighting design. Three of the five lighting designers in reflecting light implicated the construction and manipulation of the technical hardware as a part of their artistic work.

Bruno also brought a light installation that only needs electricity. No list of extra needs from the house like projectors, filters, lighting desks or computers. Just like Jan he brought an installation that has everything and works on its own. His goal for the week was to open up his installation for external inputs or collaboration. Actually, it does not work at all without an external sound source. He discovered that the filament, the tiny wire of the traditional light bulb makes a certain little sound while dimming it. So he got the idea to link audio amplifiers directly to the lightbulbs and to use the bulbs as loudspeakers. This sounds plausible but was in fact the outcome of a long experimental process, with a lot of burned amplifiers and bulbs. Besides, this great, laborious and complex work is not a guarantee for success, the quality of the light effect needs an elaborate sound check. It literally needs fine-tuning each and every time it has been set up and does not fit every sound wave. It is often said that certain artwork is never ready - that is an understatement in this case.

I think the special thing about this work is that it needs a lot of detailed conditions in order to be well interpreted. It's low fidelity character build with high effort could easily fade away in wrong conditions. I had the opportunity to take time to fully understand this work. The bulbs became little personalities, it was as if they could speak, look and breathe for themselves.

Day 6: breathing light
"I breathe into a lamp" Maureen

"I breathe into a lamp" Maureen

"Les controleurs, séquenceurs, midi-pads, machines,…tout ça ça marche, c'est juste live que je suis vraiment taquiné". Henri.

I find it remarkable how much effort lighting designers sometimes put in a set up in order for them to be intuitive, fluid and elegant with all those heavy machines. I know this problem too. Intuitive electronic tools seduce to juxtapose endless little boxes that are wired together. All those colourful little patch cables and Control LED lights have something very appealing. But if I put my hand on a drum skin, there is a thousand ways to achieve sound. Electronics are amazing and highly performative but they will never save you from the ever looming idealessness. On the contrary, if I do not have a plan I have the experience of finding myself in a dress-out of colourful patch cables that gets uncomfortably tight overtime.

Henri has tried a lot of tools in order to have a fast, responsive and clear yet versatile way of controlling light in a live situation. Meaning not needing to first hang over a laptop screen to make a software adjustment and loose contact and feeling with the stage. His most successful way to achieve this was the usage of a hammer weighted midi piano keyboard to control his lamps. I guess this means also a choice for a certain limitation but with the compromise to feel light as precise as a pianist palpates his keys hitting a string in a thousand possible ways.
"But I miss a device that doesn't exist yet. Until it does, I use the piano to control light", Henri told me that day. It shows how much there is faith in the development of technology and a patient attitude of many, waiting to experience the day their work will be lifted to the next level. I am one of them. Until that day I fill rooms with degenerated tools.

If it happens to be that you find yourself in a situation where you only need one dmx channel, one lamp and one controlling fader, you might find inspiration in Maureen's idea and find relief in limiting yourself: *"I sit straight and comfortably behind a light desk and grasp the fader gently with my thumb and index finger. I relax, close my eyes, and breathe into the fader".* Maureen.
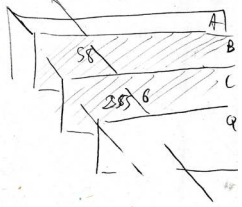
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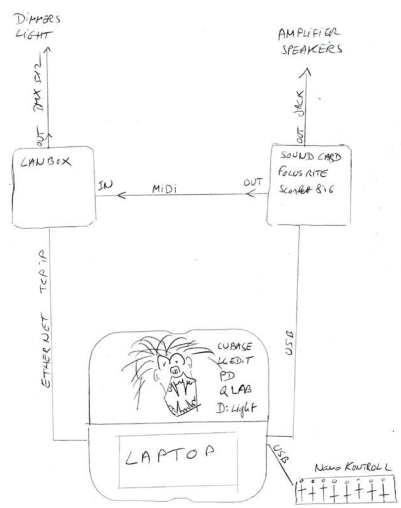LLEDIT VISUAL ARCHITECTURE
AND THEY CAN
HAVE DIFFERENT
FUNCTIONS LIKE
TRANSPARENCY HTTP/LTP/
AND COPY MODE

I SEE WITH A LOT
OF 3D VISUALISATION
SO IF LLEDIT
IS
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RUN [B]
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INFRA

DIMMERS
LIGHT

AMPLIFIER
SPEAKERS

OUT DMX D2

OUT JACK

LANBOX

SOUND CARD
FOCUSRITE
Scarlet 8i6

IN   MIDI   OUT

ETHERNET TCP IP

USB

CUBASE
LLEDIT
PD
QLAB
D:Light

LAPTOP

USB

NANO KONTROLL

reflecting light

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Observationsonlightfroma

soundperspective