

Bit Shifter Interview

In May 2005 I interviewed Chiptune virtuoso Bit Shifter via email. The interview was part of a larger research project on Chiptune for my Masters Degree.

At this time Chiptune was only just emerging as a genre and there was scant information and knowledge on the subject.

I set out to interview some of the key players, research the scene and produce an original Gameboy set at Bristol Cube based on my findings.



1] How did you come about using a Gameboy in live performance and recording and what was it about the Gameboy that initially interested you?

The interest in working in a video-game sound set was there ever since I was a kid, but I never really investigated it seriously, assuming that there was no feasible way to creatively access these sounds (I'd been vaguely aware of the demo scene but never really knew enough to fully appreciate what it was about, so I never really knew that this sort of music making wasn't as off-limits as I'd thought). A few years ago, pretty much by accident, I came across the websites for Oliver Wittchow's Nanoloop and Johan Kotlinski's Little Sound DJ, which are home-brew music making programs designed for the Nintendo Game Boy and which at the time were made available on physical cartridges. These were immediately appealing to me for a lot of reasons, not the least of which was that

they did so on a portable console. So I ordered both and started goofing around with them, and fell in love with what they could do.

2] What Gameboy software do you use in live performance and recording and why?

I use Nanoloop (v.1, for the original Game Boy) and Little Sound DJ. Both provide really great environments for composition and tracking, with cool provisions and features for live use. There are other cool music- and sound-making programs available for the Game Boy and other consoles that I want to start exploring, but for the time being these are the two I'm using.

3] Who are your influences, do you listen to other gameboy musicians? do you have a favourite?

I've always been a pretty voracious listener, so I'm influenced by (swiping from) a lot of different stuff, little pieces of this or that. For the most part I'm a rock guy, so compositionally, rock song structures probably prevail in the Game Boy stuff I'm doing. I do listen to a lot of chiptunes in general, and Game Boy stuff is a big part. There are a lot of people doing really brilliant things on these platforms, making it hard to pick a favourite. A few, just off the top of my head -- Rugar (NES musician from Sweden), Mmfan316 (Game Boy musician from Japan), Xik (Game Boy & NES musician from the US, also developer of the MIDINES, a device allowing MIDI control of the NES console), Gijs Gieskes (Game Boy musician from The Netherlands), Zabutom (Swedish Game Boy musician), YMCK (Japanese NES-jazz-pop trio), Nullsleep (US NES and Game Boy musician) . . . the list is pretty much endless.

5] What are your most recent projects?

There are a few things going on at the moment. I'm working on an EP to be released on 8bitpeoples (<http://www.8bitpeoples.com/>), a pair of tracks for an upcoming chiptune-themed Kraftwerk tribute compilation, a "remix" (more of a "rebuild" really) of the theme song from the anime series *_Urusei_Yatsura_* for an upcoming anime-theme-remix compilation, and a few other possible release appearances. Other than that, playing shows here and there, and trying to find time to explore NES chiptune programming via MML (an NES music programming language) and the MIDINES.

6] since your early tracking have you noticed any changes in your style, how has your music making changed over the course of time?

Comparatively speaking, the earlier stuff I was doing was more exploratory, it involved a lot more of "what does this do?" as the primary impulse, rather than attempting to achieve a premeditated sound. The more recent stuff is more confident, I guess, and consequently is probably less interesting in a lot of ways. Familiarity and facility with a tool can sometimes trigger tunnel

-- once you develop patterns of efficient working, happy accidents become a lot less frequent, and that can be difficult to deliberately counter.

7] What do you think of the music scene in New York, to what extent has this cultural backdrop aided your practice?

It's great. There's a viable avenue here for even the most lunatic projects. By comparison chiptunes are pretty mundane. But it's been a really rewarding environment, mainly due to my having been able to meet the people I've met, other artists & musicians. Also of course just being in such proximity to so much music has a direct creative influence. With respect to Chiptunes and Game Boy music specifically, it seems like the environment here has been pretty perfect, people hearing it are pretty quick to look beyond (or to just embrace) the novelty element of this type of musicmaking and to see it from different angles -- subversive appropriation of proprietary corporate technology; subversive cultural reclamation / re-contextualisation of an often "violent" entertainment device (in terms of video games that often involve "killing" opponents as a fundamental part of gameplay) into something entertaining for non-adversarial reasons; a way to create novel, physically-enjoyable manifestations of intangible computer code; a less-is-more refutation of high-end musicmaking software -- these are all other peoples' interpretations of this stuff that I've encountered while being here. I wish I could say any of my objectives were that academic (my motive was just making cute soundtracks to non-existent video games). But it's been cool that these kinds of interpretations have come up, and I think that being immersed in an environment with so many other artists & musicians & critically-minded people is a big part of that.

8] Have you found that different audiences react to your music in different ways, do club audiences and gallery audiences show a different appreciation and response to music?

It's pretty great, there seems to be a few different levels on which this stuff will appeal to people. Novelty element, nostalgia element, straightforward appreciation of the aesthetic as-is, academic cultural interpretations, etc. The range of responses also seems to defy the expected categorisations -- shows at rock clubs will wind up in informal conversations about repurposing technology, and more reserved, contemplative gallery spaces will turn into sweaty "indie hipster rave[s]" as one person put it. Maybe this stuff brings out the nerds in rockers and the rockers in nerds, I don't know.

9] Do you find Gameboy musicians interesting to watch? to what extent do you use accompanying visuals in your shows and why?

Visuals are where I think most people doing this music (myself

visually interesting kind of music to watch live, and the times I've played & collaborated with video artists have been much better experiences all around. I bought an old video device called an Atari Video Music, which was marketed in the early '80s as a home stereo component, it takes audio in and has video out, producing blocky & primitive abstract pixelated patterns that respond to audio amplitude. The thing is pretty aesthetically perfect for live shows, and it isn't even that big, but I'm so spoiled by being able to fit my whole live audio setup in a single shoulder bag that I can never be bothered to take anything extra with me. Some people are really dynamic performers, which can make the presence of visuals less crucial. I did a short tour with Chiptune guys Nullsleep and Covox, and that whole trip was non-stop fist waving, head banging, and retarded faces, so we got away with usually not having visuals.

10] For the "8 bits of christmas" compilation you covered the classic "let it snow", to what extent is it possibly to accurately track well known melodies and what software did you use to achieve this?

I used Little Sound DJ for that one. Aside from its range of timbres, there's nothing intrinsically limiting about the Game Boy's sound synthesis. Some game consoles have limited pitch ranges and really wry scales, but the Game Boy is capable of any pitch within a five-octave range (probably more through use of some of the custom synthesis abilities in Little Sound DJ). So in that sense it's just like any synth module, compositionally it imposes no real limitations; reproducing a recognisable melody is limited only by a user's ear.

11] What do you think of Gameboy advance and its recent transformations, compared to making music with the classic monochrome Gameboy?

It's hard for me to comment intelligently on the technical differences, because I know so little about the fundamentals of synthesis. But speaking in general terms, the Advance has much more sophisticated sound capabilities than the original generation of Game Boys, and to me it's a little bit less interesting as a creative medium. Its sound set is more versatile, but more generic; the sound of the classic Game Boy is really distinctive, but to the ear there isn't much separating the Advance from any other basic synthesiser. That said, I certainly don't disown it, Oliver Wittchow recently released Nanoloop 2.0 for the Advance, and it's got some really fascinating capabilities. Music making on the original Game Boy is interesting because it involves an unmistakeable sound set being redirected in new ways. Music making on the Advance is interesting more because of the ability to do pretty powerful synthesis in a tiny handheld unit -- I'm dying to try it on the new Game Boy Micro -- and less because of any unique character of the sound of the device.

12] What do you think of mainstream computer programs such as pro tools, logic, cubase etc?

I have no objection to them, counter to the ideological retaliation Malcolm McLaren was superimposing on the chiptune phenomenon in his article in *Wired*. I've used Cubase and ProTools a lot, not for this project but for others. Personally I do find, though, that the creative limitlessness afforded by programs like these is so staggering that it ends up paralysing the creative impulse rather than facilitating it.

In my experience, limitations can serve as guidelines and can therefore be creatively inspiring. Ironically, take away the limitations and the creative impulse shrinks away in response.

13] Do you think part of the appeal of gameboy composition/ performance is in its limitations?

Definitely, from a composing standpoint I think it presents a really perfect mixture of built-in guidelines and challenges. And I think it's probably pretty eye-opening from a listener/audience perspective for similar reasons, seeing a familiar and fairly humble device being made to surmount its apparent limitations.

14] what do you think of nintendo's licensing laws, and to what extent do you feel policies have affected musicians and people on the demo scene?

Nintendo's crackdown on "developer" gear manufacturers as a means of curbing game piracy definitely had an impact on the Game Boy music scene; it prevented Oliver and Johan from continuing to sell their programs on physical cartridges once their supply was depleted. Johan still sells LSDJ as a ROM image that buyers can download and burn to their own blank cartridges if they have them, but that still doesn't help new people looking to explore music making on actual Game Boy hardware rather than in an emulator. It's really a drag, people are scrambling to locate blank cartridges and transfer gear, scouring eBay, etc. As far as the demo scene as a whole is concerned, this is really only going to affect Game Boy programming. The Game Boy "disk" format, obviously, is proprietary, as opposed to other computing consoles which used common diskettes or floppies or data cassettes or whatever. And while on one hand I can understand Nintendo feeling compelled to take steps against game piracy, it seems strangely late, it's not like the company is still developing games for the first generation Game Boy. Commercially it's a dead platform, and it seems strange to get territorial posthumously. It's definitely badly timed in terms of independent Game Boy development.

15] Do you think that due to the progressions in new technology that old school gameboy musicians will be left behind?

Not any more so than now; in a way the Game Boy's status now as underestimated relic is a big part of its appeal. And once a relic, always a relic. I think that whatever external attention and internal participation this stuff is enjoying now will naturally give way to other things, but for reasons other than technology.