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MC CARTRIDGE

Miyajima Laboratory SHILABE (2024)

Manufacturer: <u>OTONO-EDISON LABS</u> Price (when reviewed): **14 500 PLN** 

Contact:

**NORIYUKI MIYAJIMA** 

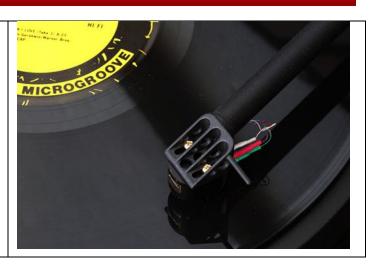
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Provided for the test by: **RCM S.C.** 



Review No 247

text WOJCIECH PACUŁA translation Marek Dyba images "High Fidelity"

[ MIYAJIMA LABORATORY (Labs) is a Japanese brand owned by OTONO-EDISON LABS, founded on March 27th 1980 in Fukuoka-shi. Its owner, Mr. Noriyuki Miyajima, is also responsible for all the designs and it was him, who came up with a unique technology used for Miyajima cartridges. We are testing a new (2024) versions of the SHILABE MC pickup.

VER FOURTEEN YEARS AGO, in May 2010, we first introduced you to Miyajima Laboratory cartridges. These were the Waza and Premium Be models (HIGH FIDELITY Nº 73, reviewed  $\rightarrow$  <u>HERE</u>). And exactly from the same moment you can count **my fascination with its products**. There was something in their sound that appealed to me, convinced me to the point that, although I have other excellent cartridges as well, when testing turntables I have been using more and more expensive of its products ever since, including the top  $\rightarrow$  <u>DESTINY</u>.

THOMAS ALVA EDISON • The **company is extremely interesting**. Miyajima Laboratory is a brand owned by Otono-Edison Labs. We wrote about Japan's ties to this brilliant inventor and exceptionally capable businessman when we tested the Madake cartridge (→ HERE). The short story is that Mr. Noriyuki Miyajima, its owner, named his company after the inventor he admired, Thomas Alva Edison (1847 - 1931). Who, it turns out, had extensive ties to Japan.

Let me recall that the founder of Edison Lab. for the filament of his first light bulb, an 1880 patent, **chose bamboo fiber**. He and his assistants examined 1,200 varieties of this tree-looking grass and chose a variety called Madake. The bulb built with it shone for 1,000 hours. And now - this bamboo was delivered to the US by Edison's assistant, Mr. William H. Moore, who brought it from Japan, from Iwashimizu.



The inventor of the electric light bulb personally visited the site in 1922. It should also be added that in his California laboratory two young Japanese learned and practiced. These two later became founders of the NEC corporation (Mr. Iwadare Kunihiko, 1886) and Toshiba (Mr. Ichisuke Fujioka, 1884). Commemorating these relationships, as well as the person of Thomas Edison, a monument was erected at the Iwashimizu Hachiman-gu Shrine, and related memorabilia can also be purchased there. Every year, on May

4th a Festival of Light is held at the shrine, during which 1,000 lanterns made of bamboo are lit in honor of the inventor.

MIYAJIMA LABORATORY • So much for Western history. For Mr. Miyajima-san himself is also an inventor, focused on vinyl playback. As he says, he initially **treated audio as a hobby**. But the deeper he studied the history of audio and related technologies, the more difficult it became for him to find a device that would satisfy his expectations.

Following this lead, he decided to look into constructing something himself. The choice **fell on a cartridge**, because, as he claims, it is "the most important component in an analog audio setup". Analyzing most designs, he came to the conclusion that none of the cartridges available on the market provides optimal contact between the needle and the surface of the record. He focused his research around this issue and in 2002 patented his own design of a monophonic cartridge, followed in 2005 by its stereo version. In both cases, the solutions used for them are intended to improve tracking precision and contact with the groove of the analog record.

The novelty of these designs lies in a completely different coil arrangement than usual. In the vast majority of commercially available solutions, the cantilever, on which the stylus is placed on one side and the coil on the other, is attached to the cartridge by a thin wire. This wire stretches this cantilever and presses against a magnet placed behind the coil. Between the coil and the magnet a spring is placed made of flexible material (rubber, silicone).

Although widely used, it is a kind of "classic" of the industry, **it is not the best solution**, because the axis of support and swing of the vibration system is not located in the center of the coil but shifted to the rear. During operation, the oscillating system must overcome the resistance provided by this wire, effectively reducing sensitivity and increasing suspension inertia.

Moreover, during operation, the coil wound on the iron core must overcome the additional attraction generated by the core placed in a strong magnetic flux. In Miyajima's solution, the cantilever is supported **on a pin protruding from the rear magnet** and pressed against the front yoke. Here the spring is placed between the coil and the front yoke.

The advantage of this solution is the fact that the support point of the cantilever **is located exactly in the axis of the coil**, thus ensuring the most efficient transformation of vibrations into electrical voltage. This type of suspension, the manufacturer assures, causes no additional resistance and has much lower inertia. The core of the coil is made of resin, which does not interfere with the flow of magnetic flux and does not introduce additional distortion.

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## A few simple words...

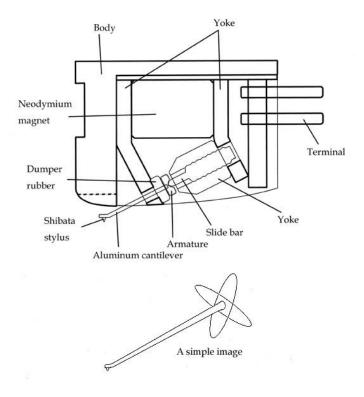
# NORIYUKI MIYAJIMA owner, designer



Mr. NORIYUKI MIYAJIMA at home • photo Miyajima Laboratory

THE PREVIOUS VERSION of the Shilabe cartridge was very well received for its **fast and pure sound**. It was also the first cartridge sold by Miyajima Laboratory overseas. However, some people complained that the realistic sound quality sounded a little harsh due to differences in the sound quality of records. Over the next ten years, the Shilabe was improved several times, and this time we were able to improve the rubber damper, which has a huge impact on the sound.

As a result, we believe that we have achieved a balanced sound quality without any harshness to it. When the new Shilabe stereo cartridge was completed, I, the manufacturer, gathered all the employees in the listening room and played a mono LP to listen to it. Everyone was surprised by the sound, and fascinated by the realistic and gentle sound quality. The person in charge of the mono cartridge brought Zero MONO and we compared it. It was certainly a powerful and realistic sound, but Shilabe was not inferior.

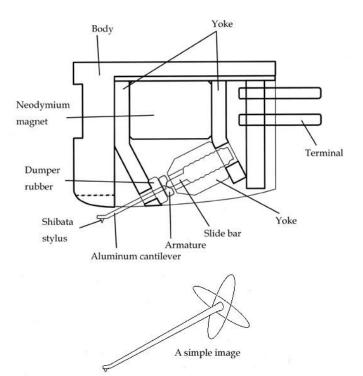


Cross-section through Shilabe • Miyajima Labs drawing

Before I made the cross-ring stereo cartridge, I thought that only a mono cartridge could produce good sound from a mono LP. It is surprisingly difficult to accurately play a mono LP with a stereo cartridge. If the fulcrum is not in the center of the coil, the structure cannot produce accurate power with a stable structure, resulting in a dull sound. As a result, mono LPs are misunderstood as having an old-fashioned sound. However, I am convinced that a cross-ring type stereo cartridge will also produce good sound for mono LPs.

When testing stereo cartridges, we use both stereo and mono LPs. This is because we believe that if a stereo cartridge can accurately track the groove and generate high energy, it can also play mono LPs with horizontal amplitude with equally good sound. So the testing method we use is unusual. But in our

opinion, it is a great way to realistically test the sound quality.



A comparison between a classic cartridge design (up) and one with cross-ring design (down) • Miyajima Labs drawing

Let me remind you, that a monophonic cartridge is a design that **supports only horizontal amplitude** and cannot play stereophonic LPs containing vertical amplitude. As it happens, monophonic cartridges that *can* play stereophonic LPs were designed back in the era of stereophonic LPs. They were intended to allow people who only had mono equipment to convert stereo LPs to mono sound. Therefore, they are fraught with many compromises. Our mono cartridges are not designed to play stereo records.

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ONCE THE MOST EXPENSIVE, today's Shilabe (2024) is **one of seven stereo cartridges** in Miyajima Labs' lineup, and sits exactly in the middle of the range, between the more expensive  $\rightarrow$  <u>KANSUI</u> and the cheaper Carbon. The manufacturer writes about it:

The African black wood of the main body is used for the materials of a clarinet and the oboe. Its characterized by a beautiful luster and is very durable. Shilabe's rubber damper has been improved in 2024. Stable tracking and a wide range of VTF are now possible without changing the sound quality. The gold plate has changed from CR to Shilabe.

Stereo cartridges, → www.MIYAJIMA-LAB.com, accessed: 17.10.2024.

The tested cartridge looks identical to its previous version and has one of the two shapes used by the company. It's all about a rounded outline with a cutout at the front for, the aforementioned, model name plate. The manufacturer writes that this is no coincidence and that **it chose this shape on purpose**: "Miyajima designed the round body of the cartridge to achieve better sound and a nice appearance." The cartridge is mounted classically, i.e. with two screws. Unfortunately, it doesn't have metal inserts, so you have to use nuts. Setting it up is not very easy, because the body has no clear vertical and horizontal lines, it is round. The screws, in several sizes, can be found in a nice box.

The internal construction is also almost identical. And yet - the change of the damper is a significant modification, although it concerns only one element. It **changed compliance of the cartridge**, from 10×10-6 cm/dyne to 8×10-6 cm/dyne. This makes it the most compliant Miyajima Laboratory cartridge model at the moment. Thus, the VTF has also changed. Instead of, as before, from 2.5 to 3.2 g, **the maximum value is 3g**. Seemingly it is not much of a difference, but thanks to it, the manufacturer says, it can be used with a wider range of tonearms than before.

For the Madake, Kansui and Shilabe cartridges, Miyajima Labs uses a **Shibata diamond stylus**. The manufacturer writes:

Since the Shibata needle is a kind of ellipse, it increases the areas in the longitudinal direction where the analog record meets the stylus. As a result, the needle can move smoothly across the record which means that the high-frequency range and stylus life expectancy are improved.



This type of stylus belongs to a larger group with the general name Line Contact. This is a shortened form of the name 'extended line contact'. It is a needle that has extended contact area with the walls of the groove of a vinyl record. It makes contact with the groove over a longer distance than elliptical needles. Needles of this type are thinner, so they reproduce treble better. Other advantages of this cut include: low distortion, less wear on the record and better tracking. It was originally developed for CD-4 quadraphonic

discs by JVC; these discs encoded rear channels up to 45 kHz.

Line Contact is not a proprietary name, so various companies **have their own names**, for mostly, but not limited to, minor modifications of the stylus. The Audiokarma website lists them as follows (→ AUDIOKARMA.org):

- SHIBATA (JVC developed and patented by JVC for their CD-4 quadraphonic four channel system, and named after their engineer who helped develop it. It was cut for them by co-developers Namiki Jewel)
- PRAMANIK (Bang and Olufsen also named after the engineer responsible)
- VAN DEN HUL Van den Hul named after the company's owner
- FRITZ GYGER Fritz Gyger
- MICRORIDGE Namiki Jewel
- MICROLINE Audio Technica; this is their name for the microridge, and is used on some of their best cartridges
- CONTACT LINE and OPTIMIZED CONTOUR LINE Soundsmith

#### **SOUND**

HOW WE LISTENED • We tested the Miyajima Laboratory Shilabe cartridge (2024) in the "High Fidelity" reference system. Wojtek Hrabia, representative of the Polish distributor, RCM, installed it **on a Kuzma Stogi 12 VTA arm**, which was mounted on → <u>KUZMA STABI</u> turntable. I tested this set along with the original Shilabe cartridge, I know it and highly appreciate it.



As Wojtek says, together they produce a near-perfect 9.5 Hz resonance. Initially we set its VTF at 2.95 g, close to the upper limit, but after some time **I reduced it to 2.8** g, which gave a more relaxed but still powerful sound. Recall that Wojtek once prepared a guide for beginner vinyl lovers, which you can find  $\rightarrow$  HERE.



The signal from the turntable was routed via Kuzma's proprietary cable **to the RCM Audio Sensor Prelude IC** phono preamplifier, from there to the Ayon Audio Spheris III preamplifier and finally to the Soulution 710 amplifier and Harbeth M40.1 speakers. The signal from the phono preamplifier was sent via Acrolink 8N-A2080III Evo interconnects.

#### » ALBUMS USED FOR THE TEST a selection

WES MONTGOMERY & WYNTON KELLY TRIO, Smokin' At The Half Note, Verve Records/Universal Music K.K. [Japan] UCJU-9083, "100 klasycznych płyt LP" (名盤 LP 100選), 200 g LP (1965/2007).

CLIFFORD BROWN AND MAX ROACH, *Study In Brown*, EmArcy/Universal Music [Japan] UCJU-9072, "100 klasycznych płyt LP" (名盤 LP 100選), 200 g LP (1955/2007).

CHARLIE HADEN, The Private Collection, Naim Label LP110, 3 x 180 g LP (2000/2008).

DEPECHE MODE, Personal Jesus, Mute 12 BONG 17, 12" 45 rpm Maxi-Single, (1989).

YAZ, *Upstairs at Eric's*, Warner Bros. Records/Mobile Fidelity MOFI 1-020, "Silver Label", "Special Limited Edition | No. 2044", 150 g LP (1982/2012).

KRAFTWERK, *Techno Pop*, Kling Klang 50999 9 66050 1 1, Mute STUMM 308, "Kling Klang Digital Masters", 180 g LP (1986/2009).

AMON TOBIN, *Dark Jovian*, Ninja Tune ZEN12387, "Record Store Day 2015", 2 x white 180 g LP (2015). JOHNNY CASH, *Blood, Sweat And Tears*, Columbia Records/Sony Music Entertainment MOLVP-1062, 180 g LP (1962/2014).

FRANK SINATRA, *The Voice*, Columbia Records/Classic Records CL 743, Quiex SV-P, 180 g LP (1955/2002). BILLIE HOLIDAY, *Lady Day*, Columbia Records/Pure Pleasure PPAN CL 637, 180 g, LP (1954/2010).

I KNOW WHY I LOVE Miyajima Laboratory phono cartridges for. And that's **for the wonderful energy transfer** they offer. Musical energy, we might add. Each of the company's models has a slightly different tonal balance, a slightly different approach to the sound's attack-to-fill ratio (I mean time), but they all orbit around the same core, which is density, saturation and, as I said, energy.



The choice of the particular design of the generator system, reaching for specific types of wood for the bodies of the cartridges and, I believe, the taste and flavor of the designer, resulted in an **unmistakable mix of features** that appealed to me from the first moment I heard the Waza and Premium Be cartridges years ago. This admiration and respect for the creator and the people building these works of art is reinforced every time I listen to another cartridge from this company.

It won't be a surprise if I say that I liked the new Shilabe A.D. 2024 **just as much**. And at the same time it is, in my opinion, an attempt by the company to go beyond the circle of people who prefer the slightly denser, slightly warmer sound of its cartridges. It's about music lovers who lacked feistiness and openness in their sound. And it is for them that the new version of the Miyajima Laboratory cartridge can be a "gateway" to the world of this manufacturer.

After all, Shilabe is a very selective cartridge in this version. And you don't have to listen closely to notice it, it's something that is "given" right away. Already the first MAX ROACH's cymbal strokes, in the **B-2** " *George's Dilema* from the *Study in Brown* sounded exceptionally strong and clear. Purity is a signature

thing for these cartridges, but the level, intensity and speed of these beats is something new throughout this manufacturer's range.

This is also followed by **fantastic sound organization**. This is a monophonic recording, so it's particularly demanding in terms of micro-information, because it's in them that spatial relationships are "described". Miyajima played this record with the calmness of a professional, in that it reminded me of what I used to hear with TechDAS turntables, mainly the  $\rightarrow$  <u>AIR FORCE ONE</u> and, even more so, the  $\rightarrow$  <u>THREE PREMIUM</u> models. It's all about something like driving the sound "like a string". It is clearly defined, has clean edges and a precise "core".

The version I listened to of this iconic album is from 2007 and was cut from "master" tapes by Joseph M. Palmaccio at Sony Music Studios and pressed on 200g (!) vinyl. It is excellent. From the same "100 Classic LPs" series prepared at the time comes my copy of WES MONTGOMERY and WYNTON KELLY TRIO's album entitled *Smokin' At The Half Note*. It, on the other hand, is very warm, even saturated. And that's how it's shown.

The leader's guitar had mass, low timbre and density. But there was something else I've already mentioned - precision. For a long time, before I even sat down for the actual listening, I tried to arrange in my head how this compares to what this Japanese company offers in the other cartridges in its range. And I did this by listening to recordings prepared for a presentation I was to give at the Audio Video Show 2024 in Warsaw, Poland, dedicated to the single *Personal Jesus* by DEPECHE MODE; more → HERE LPL.

There were DM albums, of course, but also Yazoo, Alison Moyet, Kraftwerk, Pet Shop Boys and others - everything related to the creation of this record. And, the way I see it, the new Shilabe is all about slightly **moving the foreground away from the listener** and more accurately emphasizing the front of the attack from the sound. It's still 'Miyajima's sound', no question, but a sound on the one hand more withdrawn - because the foreground is placed farther away from us - and at the same time with more information about the elements of sound in the upper band. In a word - it's a more open sound.

The recordings from side A of the aforementioned Montgomery album, namely A-1 'No Blues by Miles Davis and A-2 'If You Could See Me Now by Tadd Dameron and Carl Sigman, are "live" recordings (the B-side was recorded in Rudy Van Gelder's studio). And there was a freshness in them, as if the recording was made yesterday. Other cartridges from this company somewhat romanticize this type of recording, which I perceive as a gift. Because it brings emotion to the sound, which is what I'm all about in music. But I also know that this is a departure from full neutrality.

The new Shilabe doesn't give it up, maybe just a little, yet it **shows the sound more accurately**, maybe even - that's not the right term, but let it be - cleaner. And with energy radiated in a more direct way. Because it's not that other Miyajima cartridges are low on energy, that's completely wrong. They are excellent in this respect. But energy can be formed in different ways. Here, part of it has been devoted to faster wave formation at the beginning of the sound.

And this applies not only to cymbals, but simply to the whole presentation. It's interesting, but it's often the case that the price we pay for this kind of purity is a unification of sound. Because if everything has a stronger attack, it seems more similar to each other. **This is not the case here**. Already on Roach's album, I heard an absolute change in mood when, after the first three tracks, I heard . **B-4** If I Love Again, which was clearly recorded at another time, in a different way, because it is more dampened and less "shrill" at the top; it also has lower dynamics.

I had the same experience when I moved from the Half Note club to another concert, by CHARLIE HADEN. Released by Linn Records, the three-disc *The Private Collection* collects recordings from two birthday concerts, in August 1987 and April 1988, both recorded at Webster University. And it's a completely different tone, spatial relationships and perspective. Here **everything is on axis, farther, deeper**. Recording the album, Ken Christianson uses classic, minimalist techniques, recording the material on an analog Nagra IV tape recorder and mixing the signal live. This yields a less tangible, but spatially deeper transfer.

But I wanted to talk about differentiation - you could immediately hear that this was a completely different approach to sound matter than Van Gelder's. There there was tangibility, here there is breath, there direct energy, here mediated by the venue. There, finally, the energy was condensed in small packets, within specific instruments, which were thus clearer and stronger, here it was distributed more evenly, so that I got a picture of larger assumptions rather than individual components of the message. And all this is clear with the new Shilabe.

Which is not to say that something is blending together in the sound. Miyajima's new cartridge **showed the individual instruments accurately**, without trying to "pluck" them out of the mix. But it was clear right away that it was going deeper into the sound, towards selectivity. And again - without leaning the sound. The recording in question, whether **A-1** "Hermitage by Pat Metheny, or L **A-2** "Passport by Charlie Parker, from the first side, show the soloist's double bass in a not very selective, even "boomy" way. The session recorded a year later seems to me better in this respect.

Which Shilabe showed perfectly. It was a low, even very low sound, with great weight and extension. But also not very selective. But only because that's how it was recorded. Listening earlier to Depeche Mode's Behind The Wheel maxi-single, with a remix of this song with unusual motorics and very low, energetic bass, I got just what I was waiting for. That is - in Haden's case - not only the sounds of glasses being moved, perfectly heard during the long double bass solo at the end of Passport, because that's obvious. But also the scale of the instrument, its "presence."

And these qualities are served **no matter what kind of music** we listen to. I had it both with jazz and with Hilary Hahn's violin solo playing EUGÈNE YSAŸE's sonatas, and it was also the case with AMON TOBIN's electronics from the *Dark Jovian* album. For this is a very versatile cartridge, I would even say more so than all other cartridges from this manufacturer that I know. A quick switch to BILLIE HOLIDAY'S *Lady Day*, that is, with recordings made between 1935 and 1937 for Columbia, released magnificently by Pure Pleasure Records in 2010, simply transported me to another time. It wasn't a change in timbre, selectivity impact and the like, but a change in mood.

Also with this album, Shilabe A.D. 2024 played clearly, selectively - for this type of material - but also physiologically. By this I mean a sound that is easy to listen to, in which there is a lot of information about saturation, about timbre, about dynamics. That is - pleasant. But not "sleepily pleasant", **but still energetic** and dynamic.

### Summary

THE NEW VERSION OF SHILABE **sounds great**. It retains a large part of the characteristics of its predecessor, but also modifies the direction in which we go. Now it is a more open, with more powerful attack, and more selective presentation than before, There seems to be more energy, but this is not the

case, all other cartridges from this manufacturer are very good in this respect. But the impression remains, and this is also part of its own characteristics.



There is very little stylus travel noise with this cartridge, it is also not particularly sensitive to pops&cracks. I set its VTF, eventually, at 2.75g. This helped to tighten up the sound, but without extinguishing its energy. This is also the point where vocals and instruments on the axis have the best drawing and depth. With a high-end turntable, as you can see it doesn't have to be expensive, just good, the new Shilabe cartridge will give us plenty of time spent with music that has both "spirit" and "body." That is, it is both "emotional" and "technical", all at once. •

#### Technical specifications (acc. to the manufacturer)

Type: stereo MC

Internal impedance: around 16  $\Omega$ 

Output: around 0.23 mV

Frequency range (-3 dB): 20 Hz-32 kHz

VTF: 2.5-3.2 g (recommended: 3 g; 2024 version)

Stylus: Shibata 

diamond

Compliance (100 Hz): around 8×10-6 cm/dyne

Body: African Blackwood

Dimensions:  $18.8 \times 21.9 \text{ mm}$  (W x D, without pins)

Weight: around 9.7 g



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