

# Urban Mining Business

## 都市鉱山ビジネス

Actually easier to commercialize than natural mines with definite reserves  
実は天然鉱山より埋蔵量確定でビジネス化が容易

# about Urban Mining

地上に蓄積された工業製品を都市に眠る鉱山資源とみなすリサイクル概念

都市鉱山 (urban mining) の特徴と具体例

特徴

確定埋蔵量が明確であり、探索の必要がない。

加工を経て集約的に使用されたものであるため、一般に天然鉱石より高品位である。

採鉱・製錬という視点で、省資源・省エネルギーの可能性が大きい。

景観の改善や拡散による環境汚染を回避できる。

都市鉱山の具体例

電子機器内の基板(都市鉱山に対して「都市鉱石」と呼びます)には様々な部品が存在し、各部品の中には、レアメタルやレアアースを含む希少・有価な金属を含有するものもあります。一例として、携帯電話に含まれる都市鉱山を示します。

Recycling concept in which industrial products accumulated on the ground are regarded as mined resources in the city

Characteristics and Examples of Urban Mining  
Characteristics

The amount of proven and probable reserves is clear, and there is no need for exploration.

Generally higher grade than natural ores because they have been intensively used through processing.

Great potential for resource and energy conservation from the perspective of mining and smelting.

Environmental pollution due to landscape improvement and proliferation can be avoided.

Examples of urban mines

Substrates in electronic devices (called "urban ores" as opposed to urban mines) contain a variety of components, and some of each component contains rare and valuable metals, including rare metals and rare earths. As an example, here is an urban mine contained in a cell phone.

# Sleeping in the city.豊富に眠る資源

例えばMobilePhone

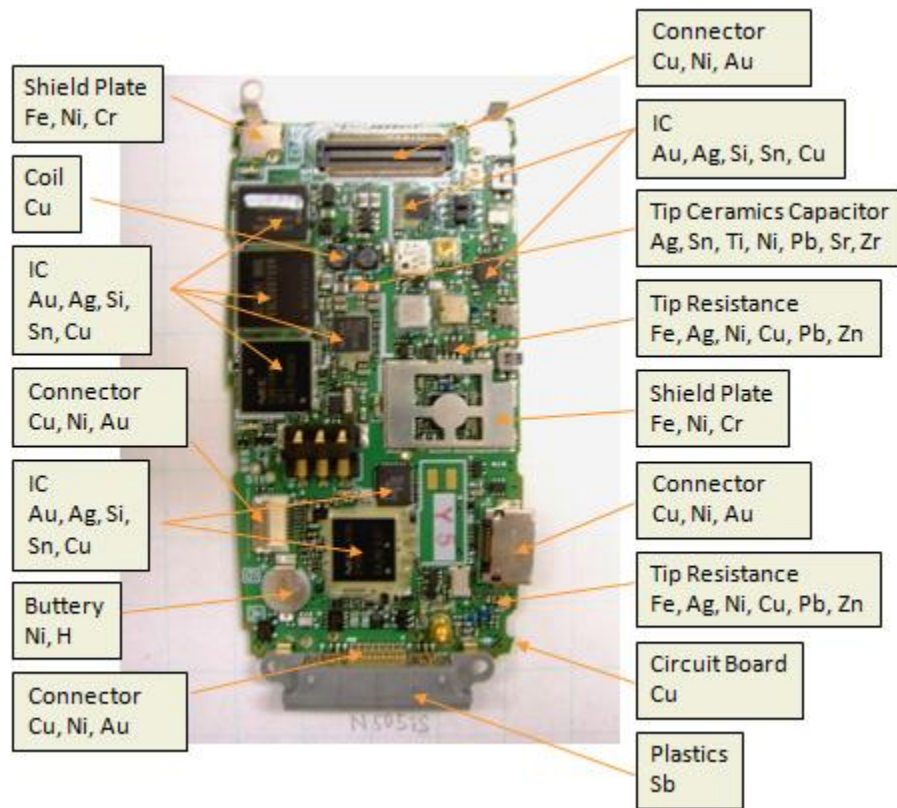
右に示すようなレアメタルが、高純度で眠っている

問題は、これらを簡単に取り出せるか？である。

MobilePhone, for example

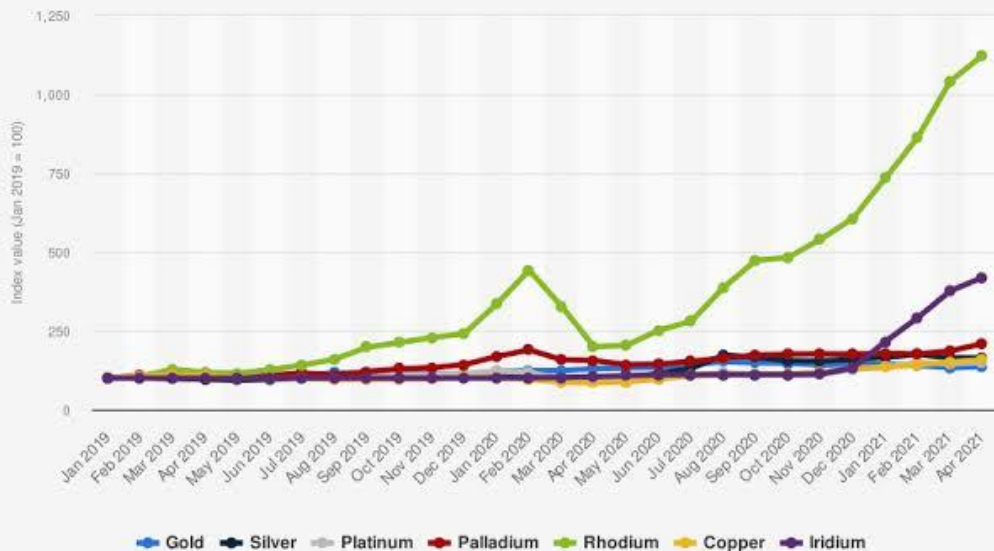
The rare metals shown on the right are lying in high purity.

The question is, can these be easily extracted? The question is: Can they be easily extracted?



# Rare metal price chart

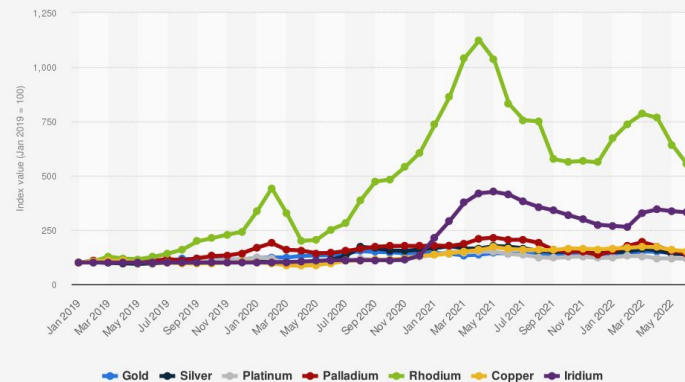
Monthly development of the price of selected precious metals from January 2019 to April 2021 (in index value)



Sources  
Kitco; St. Louis Fed; IMF; Johnson Matthey  
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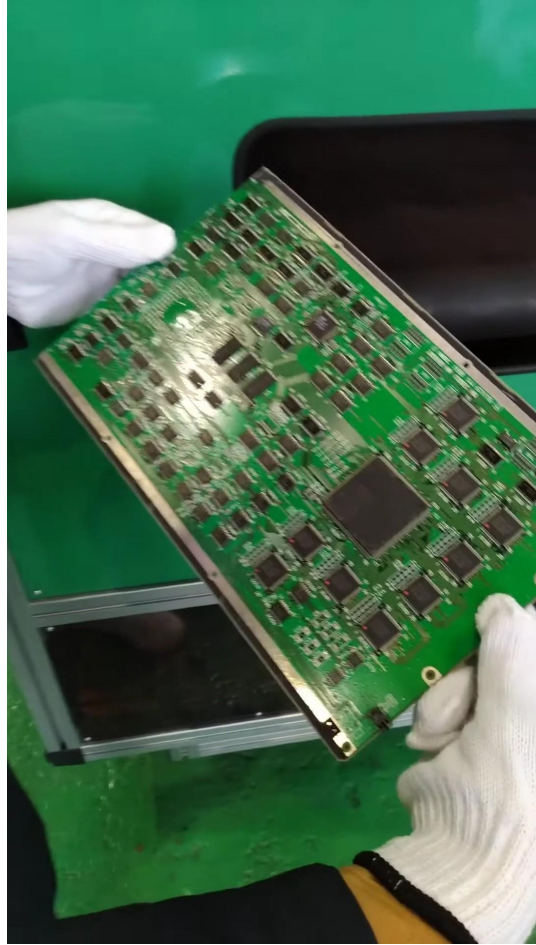
Additional Information:  
Worldwide; Kitco; IMF; Johnson Matthey; January 2021 to April 2021; Index values have been calculated by Statista using between monthly average prices.

Monthly development of the price of selected precious metals from January 2019 to June 2022 (in index value)



Sources  
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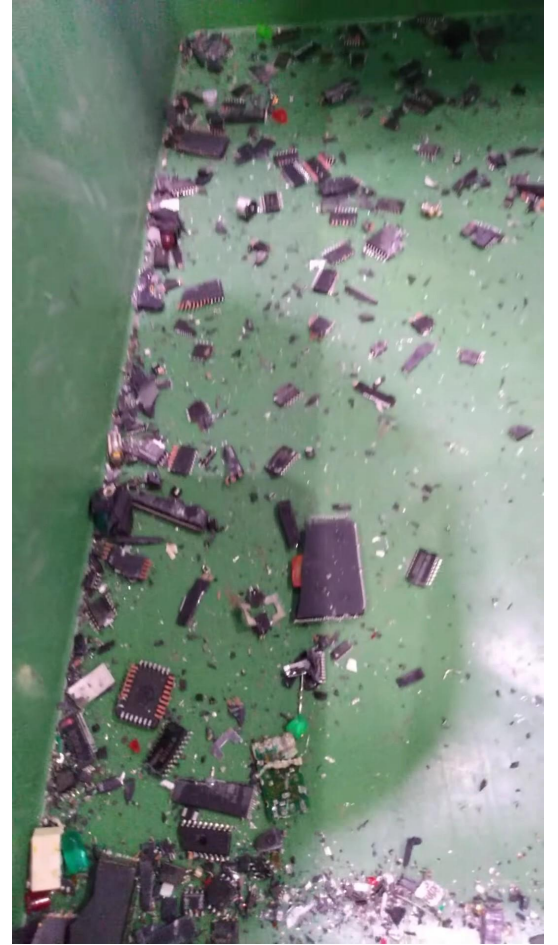
Additional Information:  
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あるマシンに電子基板を挿入すると、部品だけきれいに削ぎ取ることができる。

この先の分別は簡単だ。  
When an electronic board is inserted into one machine, only the components can be scraped clean.  
Sorting beyond this is easy.

<https://photos.app.goo.gl/jf8RRUH29WMhJGFu6>



大きな事業だ

huge potential