

EcoMandala: Milestone 2 Report

1. API Reference

EcoMandala API base URL:

Unset

<https://us-central1-ecomandala.cloudfunctions.net>

Generate EcoMandala

Endpoint:

Unset

`/addSite/<H3INDEX>/<API_KEY>`

Example:

Unset

```
curl -X 'GET' \
'https://us-central1-ecomandala.cloudfunctions.net/addSite/891e0874587fffff/1
420d55a-e194-4aa6-b57d-6d0f0d3b0738'
```

Response:

Unset

```
{
  "Asset-ID": "",
  "H3-ID": "891e0874587fffff",
  "IPFS": "",
  "ISO": "GL",
  "LatLon": "-1.7405,41.0185",
  "NFT-ID": "",
  "Org": "GE",
  "OrgCode": "XX",
  "Status": "pending",
  "TX-ID": "",
  "Timestamp-last": "2024-12-18 09:09:27",
  "Timestamp-start": "2024-12-18 09:09:27",
```

```
"UUID": "c8741cc4-bd1f-11ef",
"UserID": "12345678",
"Version": "20241212.1"
}
```

Mint EcoMandala NFT

Endpoint:

```
Unset
/mintNFT/<UUID>/<API_KEY>
```

Example:

```
Unset
curl -X 'GET' \
'https://us-central1-ecomandala.cloudfunctions.net/mintNFT/c8741cc4-bd1f-11ef/1420d55a-e194-4aa6-b57d-6d0f0d3b0738'
```

Response:

```
Unset
{
  "mintAndSendId": 26462,
  "sendedNft": [
    {
      "assetId": null,
      "assetname": null,
      "detaildata": null,
      "displayname": null,
      "fingerprint": null,
      "gatewayLink":
      "https://c-ipfs-gw.nmkr.io/ipfs/QmZcEBA1HX7tyGkenhtuYDs3cD9XSnXxJ5QoJ6qhynPG6a",
      "id": 2412850,
      "initialMintTxHash": null,
      "ipfsLink":
      "ipfs://QmZcEBA1HX7tyGkenhtuYDs3cD9XSnXxJ5QoJ6qhynPG6a",
      "minted": false,
      "name": "c8741cc4-bd1f-11ef",
      "paymentGatewayLinkForSpecificSale": null,
      "policyId": null,
      "price": null,
    }
  ]
}
```

```
        "priceSolana": null,
        "selldate": null,
        "series": null,
        "state": "reserved",
        "tokenamount": 0,
        "uid": "96f06c23-4d45-4f0a-a9c3-8dfcb81b89d8"
    }
]
}
```

Fetch EcoMandala NFT Metadata

Endpoint:

```
Unset
/getMetadata/<UUID>/<API_KEY>
```

Example:

```
Unset
curl -X 'GET' \
'https://us-central1-ecomandala.cloudfunctions.net/getMetadata/c8741cc4-bd1f-11ef/1420d55a-e194-4aa6-b57d-6d0f0d3b0738'
```

Response:

```
Unset
{
  "721": {
    "3f975eef43dd289add5adae58e35189486ac85eb2c95971407c505b4": {
      "6fc7b43e-bae8-11ef": {
        "name": "8958232120fffff-20241217-6fc7b43e",
        "image": "ipfs://QmaP2DGawAz28e8PPt6hS9gQUkdBJMuGrxhyUX4j9jmzf7",
        "mediaType": "image/png",
        "description": "Ecomandala Preprod",
        "h3index": "8958232120fffff",
        "Website": "https://ecomandala.gamma.earth/",
        "creationDate": "2024-12-18",
        "meteoDataIPFS": "QmaP2DGawAz28e8PPt6hS9gQUkdBJMuGrxhyUX4j9jmzf7",
        "meteoDataHash": "3a7bd3e2360a3d7f5606b147f38e9ed4d716acf5e4d4ef2fa3d580a0d3e7f98",
        "satDataIPFS": "QmaP2DGawAz28e8PPt6hS9gQUkdBJMuGrxhyUX4j9jmzf7",
```

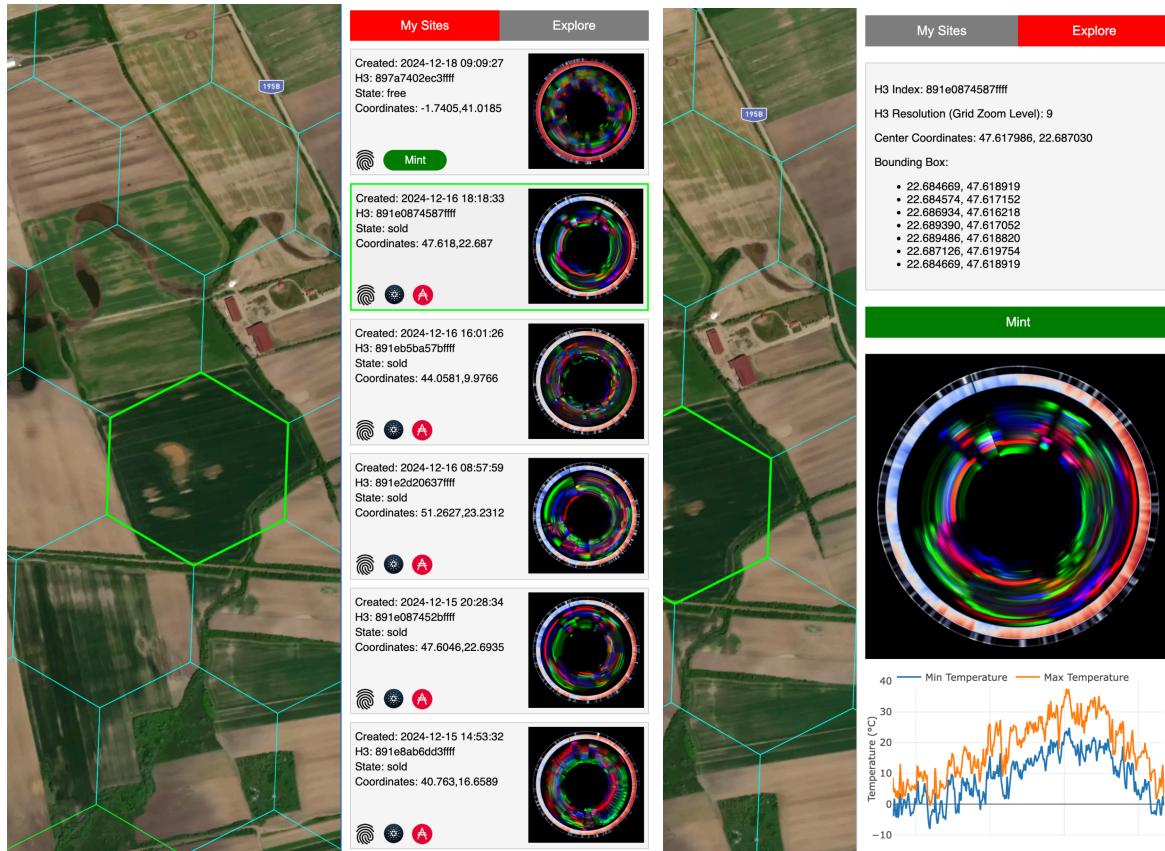
```
"satDataHash":  
"3a7bd3e2360a3d7f5606b147f38e9ed4d716acfc5e4d4ef2fa3d580a0d3e7f98",  
"files": [  
  {  
    "name": "8958232120fffff-20241217-6fc7b43e-mandala",  
    "mediaType": "image/png",  
    "src": "ipfs://QmaP2DGawAz28e8PPt6hS9gQUkdBJMuGrxhyUX4j9jmzf7"  
  },  
  {  
    "name": "8958232120fffff-20241217-6fc7b43e-meteo",  
    "mediaType": "application/json",  
    "src": "ipfs://QmaP2DGawAz28e8PPt6hS9gQUkdBJMuGrxhyUX4j9jmzf7"  
  },  
  {  
    "name": "8958232120fffff-20241217-6fc7b43e-satellite",  
    "mediaType": "application/octet-stream",  
    "src": "ipfs://QmaP2DGawAz28e8PPt6hS9gQUkdBJMuGrxhyUX4j9jmzf7"  
  }  
]  
},  
"version": "1.0"  
}  
}
```

2. UI Manual

EcoMandala portal URL

URL: <https://gamayos.github.io/pcf12-ecomandala/ecomandala-20240916-1.html>

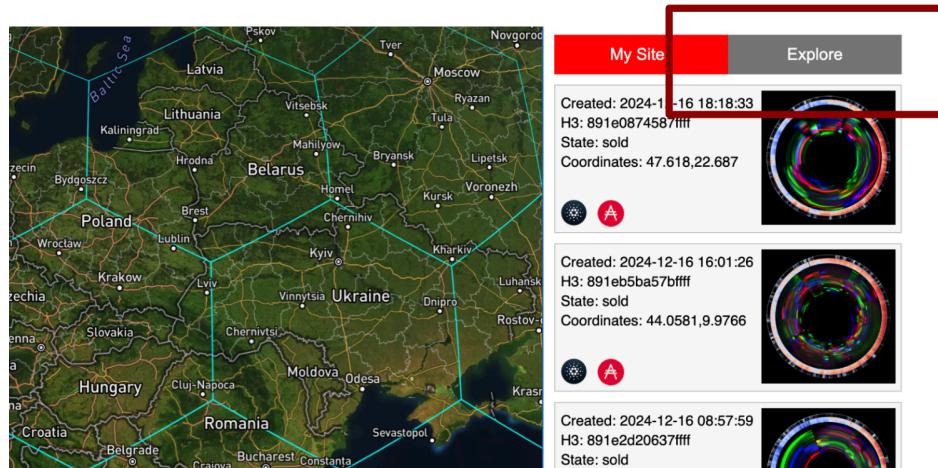
Navigation



The main interface includes a map and the information panel composed of two tabs ‘My Sites’ and ‘Explore’ that allow navigation between generated sites, as well as review of the data recorded for each site.

Generating EcoMandala

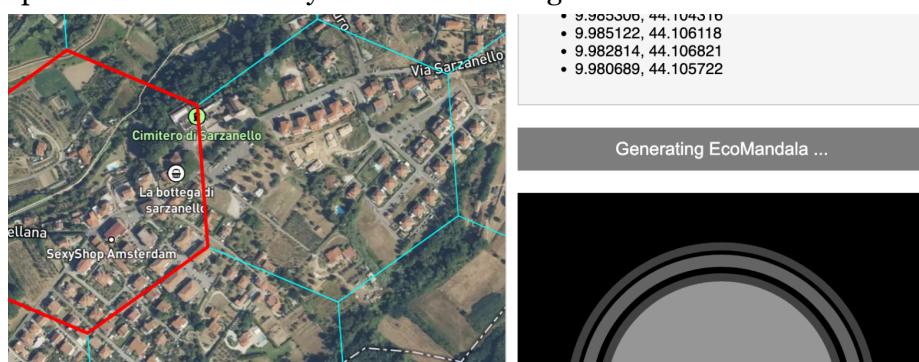
1. Open the Explore tab in the top right corner



- Zoom in until you reach zoom level 9 and click on the H3 hex cell of interest. The cell will be highlighted in red and the Generate button will be activated. Click the Generate button to generate the NFT.



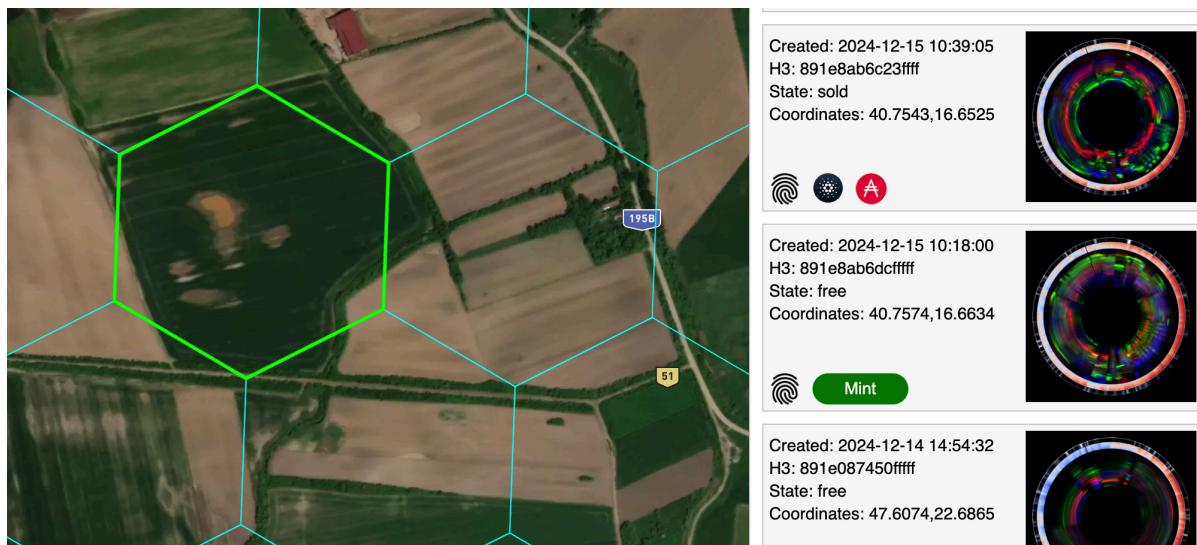
- It will take around 10 seconds to generate a preview and another 5 minutes to compile all of the necessary information and generate an NFT.



EcoMandala NFT Minting

Generated NFTs are listed in the ‘My List’ tab. Where the minted tokens are indicated by the Cardano logo. Unminted tokens are indicated by an active green button ‘Mint’ at the bottom

of the token card as indicated below. To mint an NFT click the ‘Mint’ button. The minting process may take up to 5 minutes to complete.



Upon the completion of the minting process, a red CExplorer logo will be displayed at the bottom on the token card. A click on the CExplorer icon will open the corresponding token record.

The screenshot shows the Cexplorer.io preprod interface. The left sidebar includes links for CARDANO EXPLORER, Dashboard, Watchlist, Pools, and Assets. The main content area displays the details of a minted asset:

- Asset Name:** Ofac353c-bad1-1lef
- Encoded Name:** 3f975eef43...16566
- Fingerprint:** asset1mn5qh4flus5my6q937s5ftkayn63wzjtm5tzu
- Encoded:** 30666163333533632d626164312d31316566

A click on the fingerprint icon at the bottom left of the token card will show the metadata of the corresponding EcoMandala NFT.