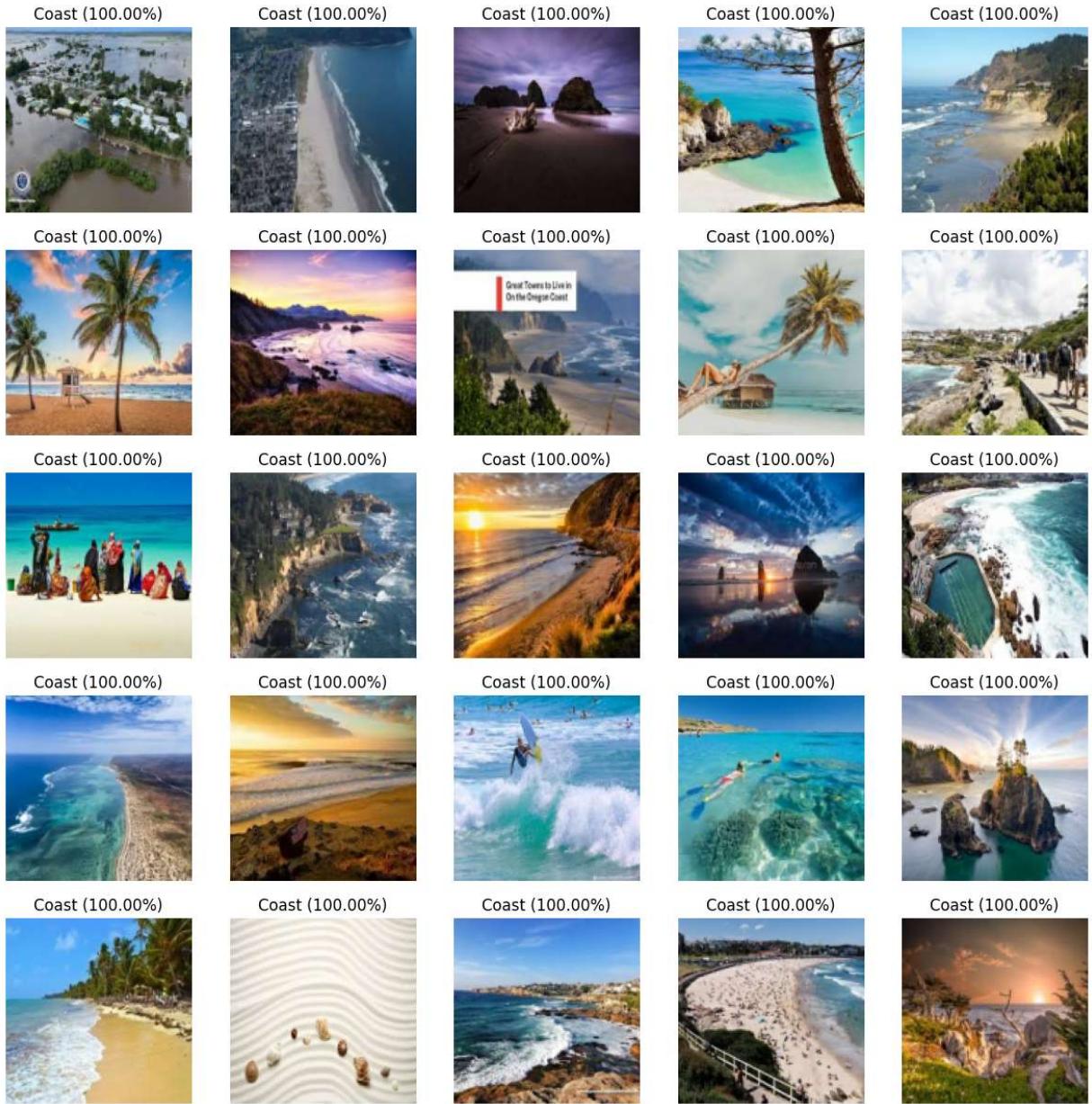


Visualize Dataset

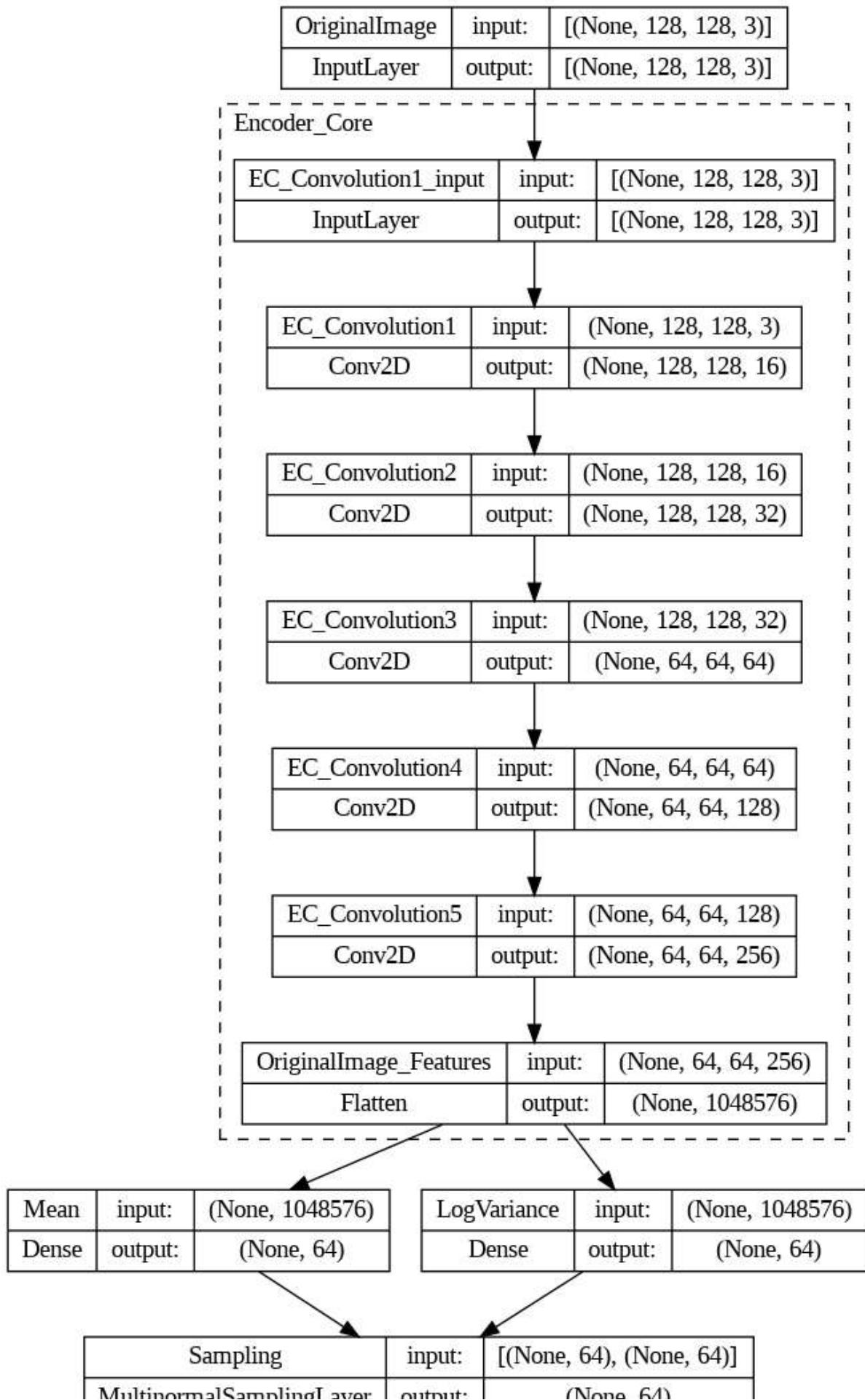


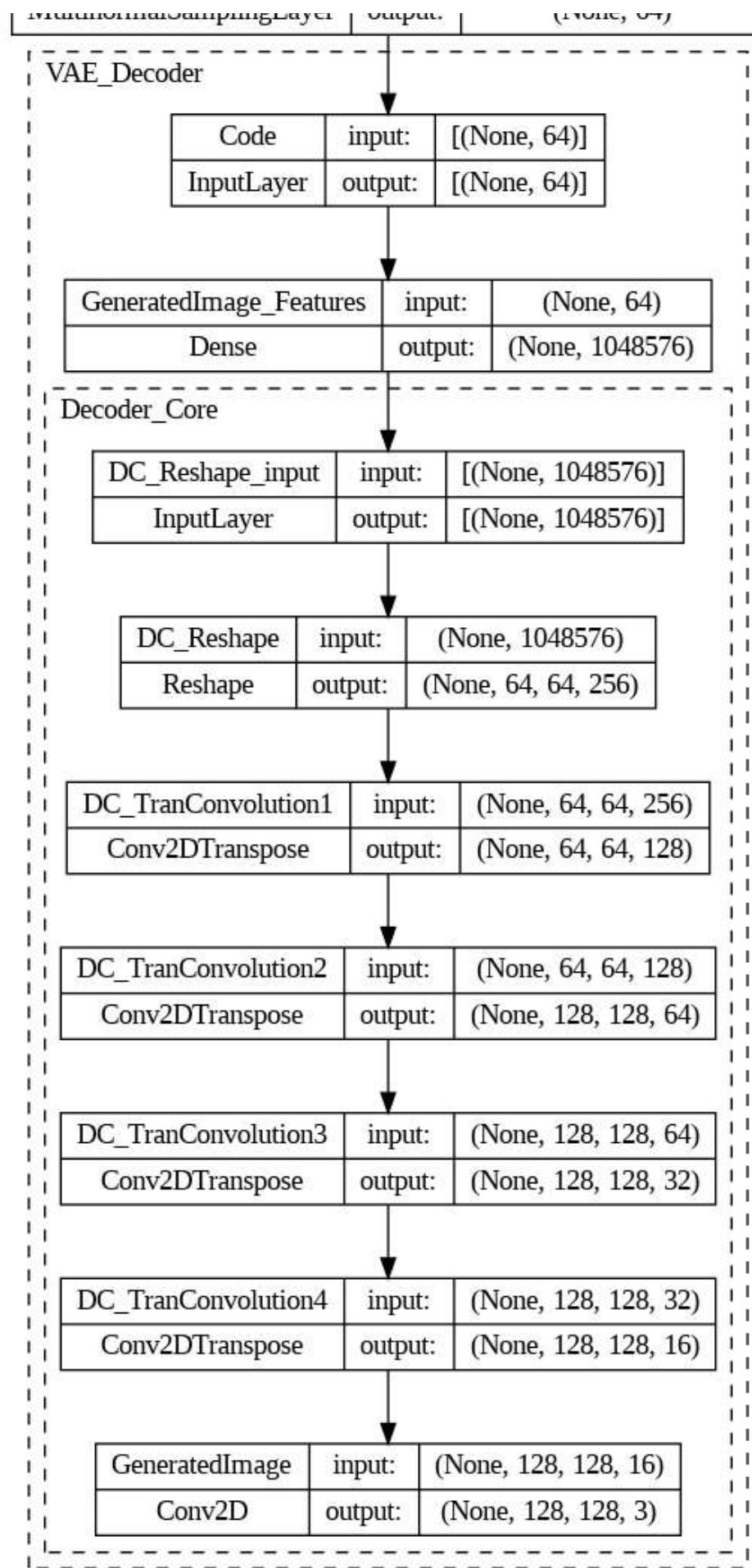
Variational AutoEncoder

Model: "VAE"

Layer (type)	Output Shape	Param #	Connected to
<hr/>			
<hr/>			
OriginalImage (InputLayer)	[(None, 128, 128, 3)]	0	[]
Encoder_Core (Sequential)	(None, 1048576)	392608	['OriginalImage[0][0]']
Mean (Dense)	(None, 64)	6710892	['Encoder_Core[0][0]']
LogVariance (Dense)	(None, 64)	6710892	['Encoder_Core[0][0]']
Sampling (MultinormalSamplingLayer)	(None, 64)	0	['Mean[0][0]', 'LogVariance[0][0]']
VAE_Decoder (Functional)	(None, 128, 128, 3)	6833195	['Sampling[0][0]']
		5	
<hr/>			
<hr/>			
Total params: 202942419 (774.16 MB)			
Trainable params: 202942419 (774.16 MB)			
Non-trainable params: 0 (0.00 Byte)			

Out[97]:





Training

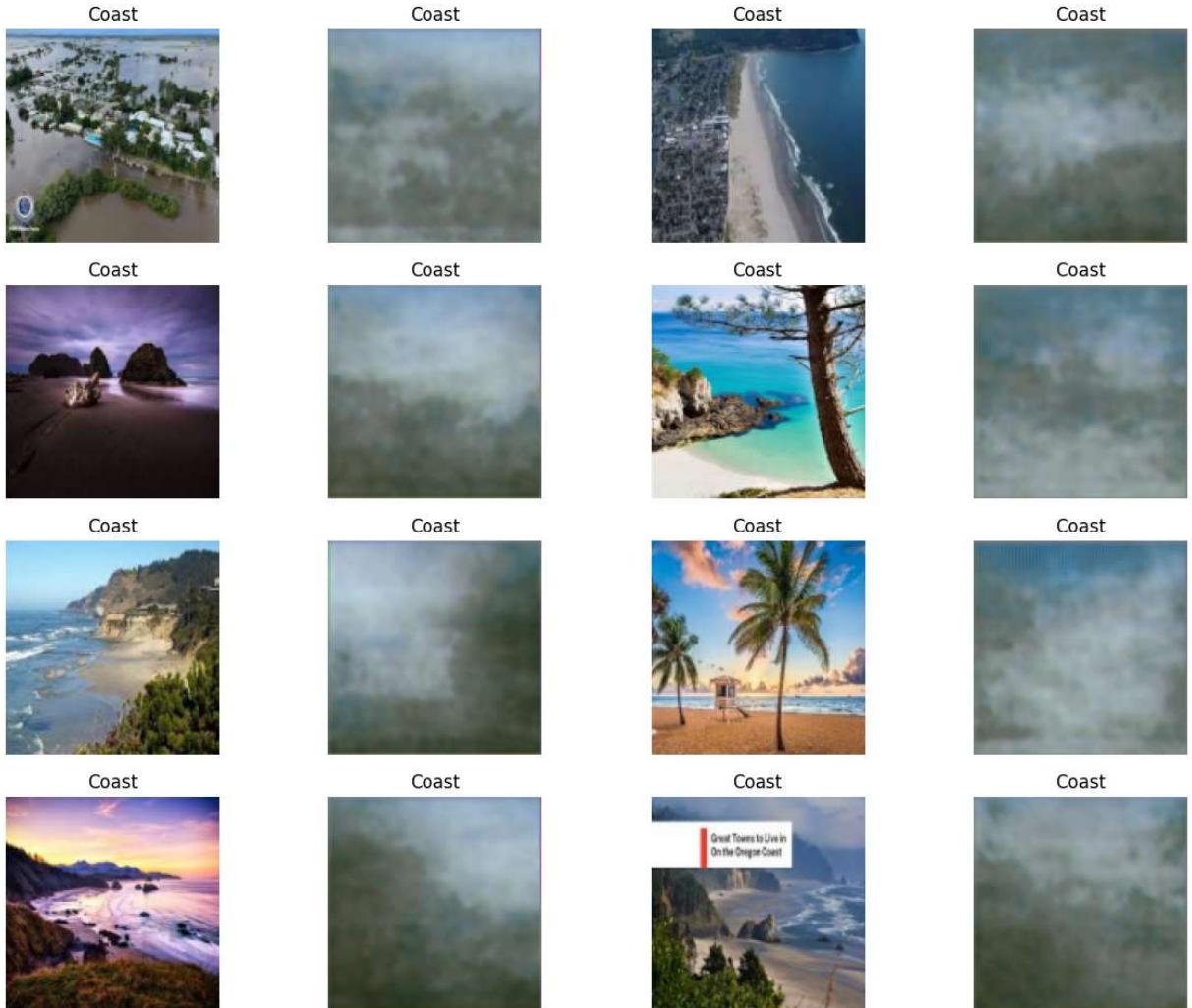
Epoch 1/1000

6/Unknown - 12s 191ms/step - loss: 259.7293 - reconstruction_error: 132.5444 - regularization_error: 127.1849

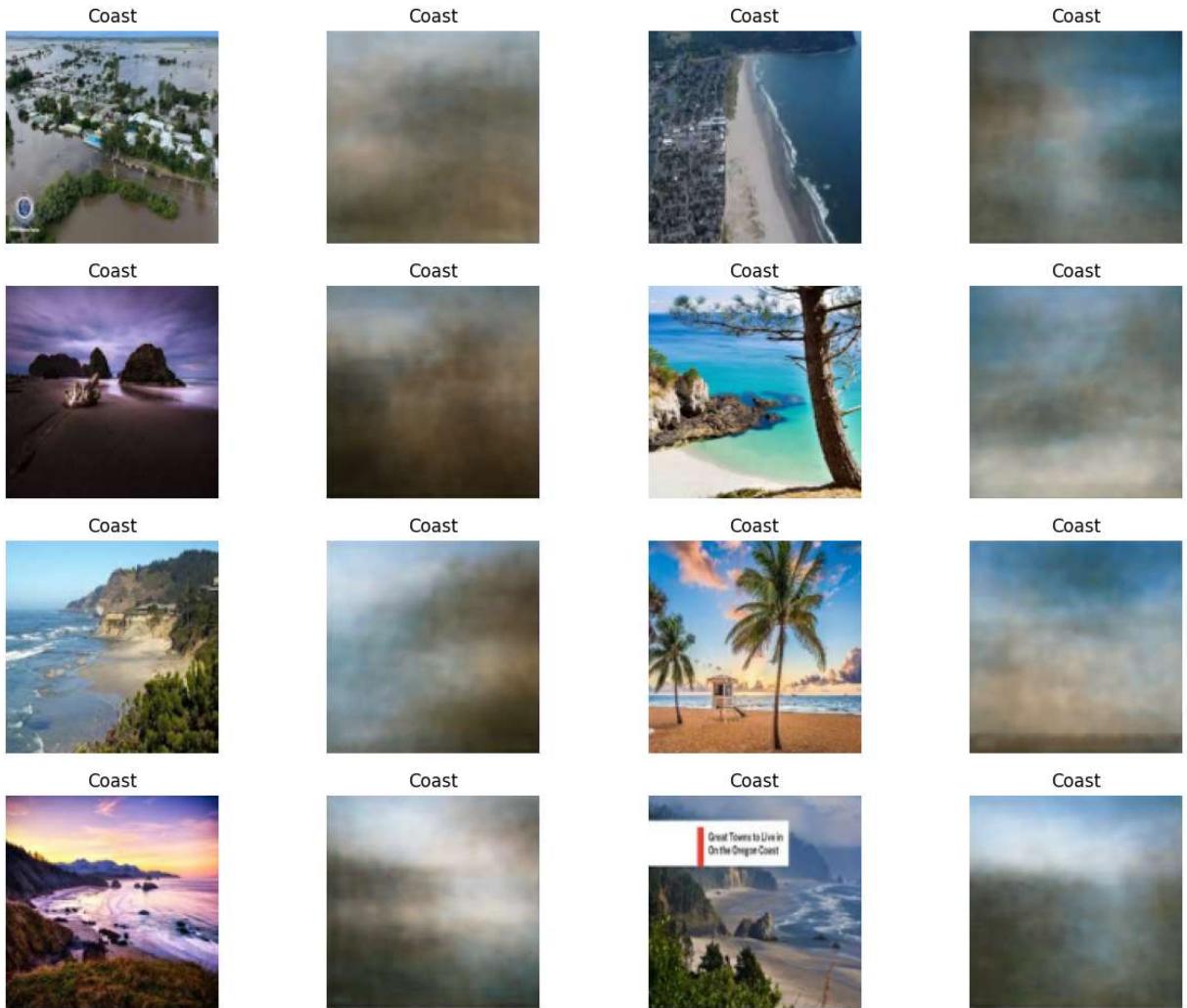
WARNING:tensorflow:Callback method `on_train_batch_end` is slow compared to the batch time (batch time: 0.0237s vs `on_train_batch_end` time: 0.1384s). Check your callbacks.

120/Unknown - 24s 106ms/step - loss: 123.6179 - reconstruction_error: 111.8589 - regularization_error: 11.7589

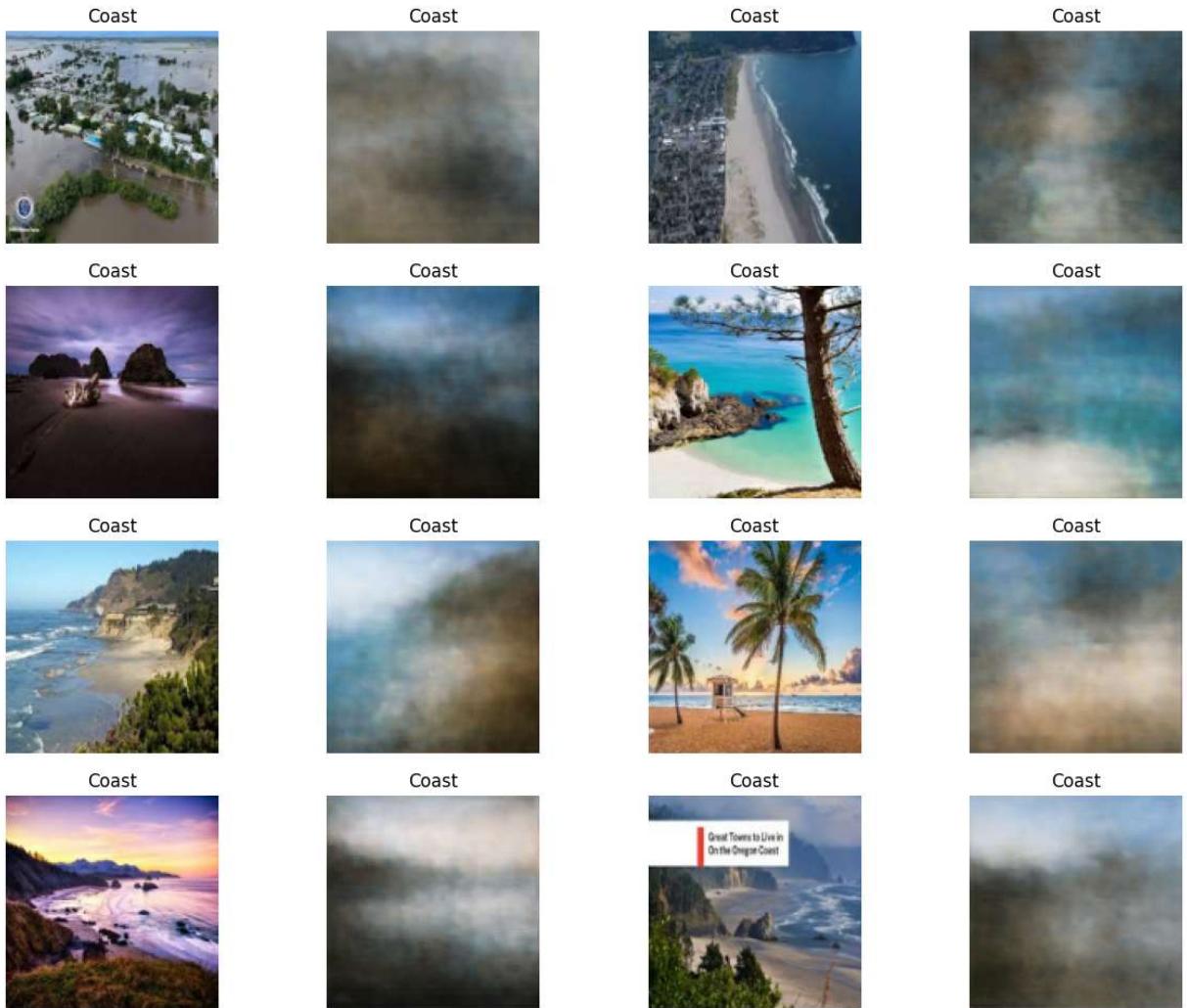
[2023-12-01 09:42:55.755164]: Reconstructing images for epoch 1 ...



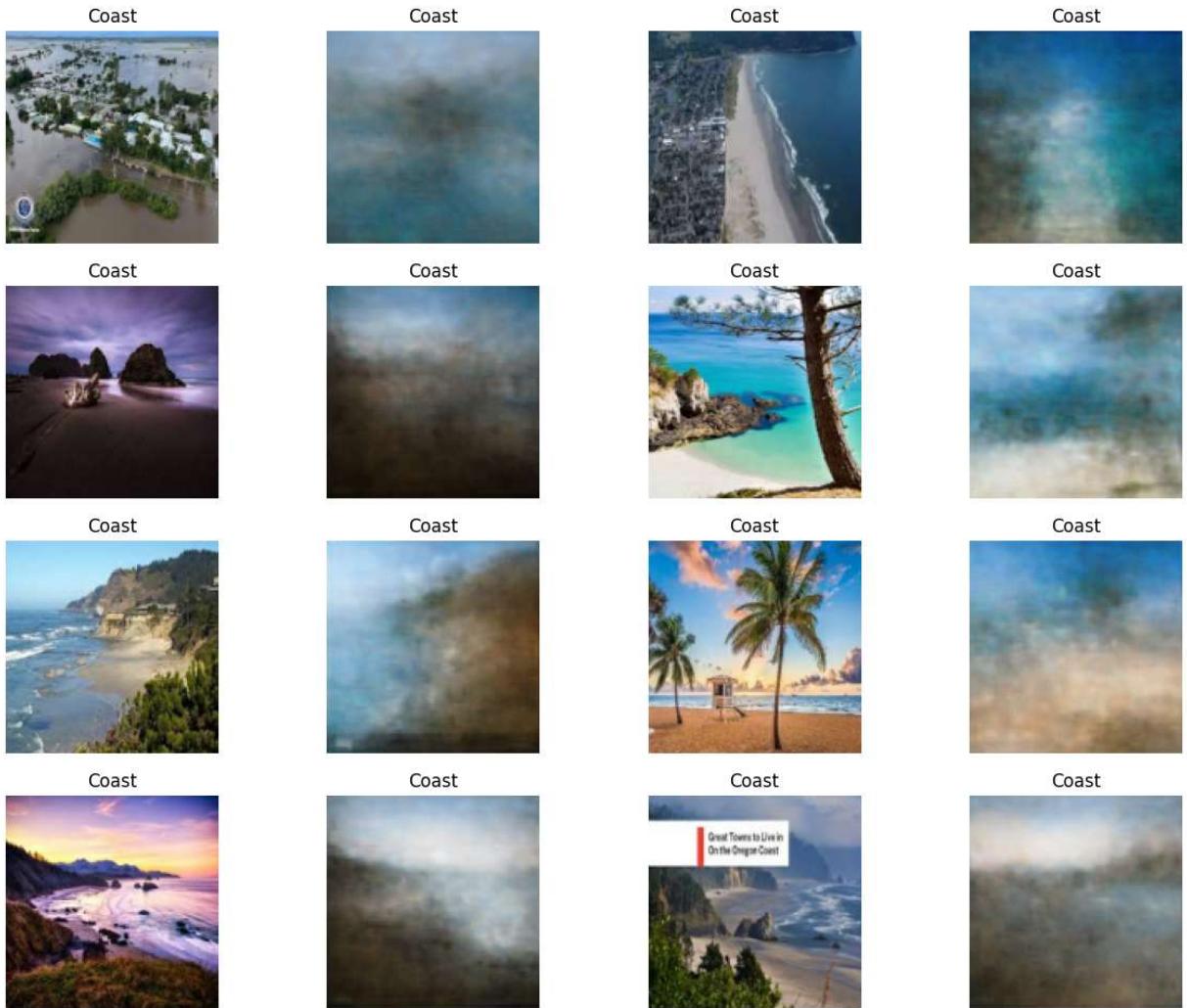
```
120/120 [=====] - 38s 223ms/step - loss: 123.6179 - reconstruction_error: 111.8589 - regularization_error: 11.7589 - val_loss: 104.1375 - val_reconstruction_error: 97.4281 - val_regularization_error: 6.7094
Epoch 2/1000
120/120 [=====] - 19s 160ms/step - loss: 98.3139 - reconstruction_error: 87.6586 - regularization_error: 10.6553 - val_loss: 103.2558 - val_reconstruction_error: 97.0725 - val_regularization_error: 6.1833
Epoch 3/1000
120/120 [=====] - 17s 137ms/step - loss: 90.9625 - reconstruction_error: 79.1392 - regularization_error: 11.8233 - val_loss: 88.8316 - val_reconstruction_error: 75.8134 - val_regularization_error: 13.0182
Epoch 4/1000
120/120 [=====] - 18s 150ms/step - loss: 86.7010 - reconstruction_error: 74.5844 - regularization_error: 12.1166 - val_loss: 85.1823 - val_reconstruction_error: 70.0415 - val_regularization_error: 15.1408
Epoch 5/1000
120/120 [=====] - 16s 131ms/step - loss: 82.4143 - reconstruction_error: 69.6040 - regularization_error: 12.8102 - val_loss: 82.9594 - val_reconstruction_error: 72.2907 - val_regularization_error: 10.6687
Epoch 6/1000
120/120 [=====] - 18s 147ms/step - loss: 80.4136 - reconstruction_error: 67.3233 - regularization_error: 13.0902 - val_loss: 81.7030 - val_reconstruction_error: 69.6797 - val_regularization_error: 12.0232
Epoch 7/1000
120/120 [=====] - 19s 153ms/step - loss: 78.9719 - reconstruction_error: 65.6212 - regularization_error: 13.3507 - val_loss: 79.6492 - val_reconstruction_error: 64.6150 - val_regularization_error: 15.0342
Epoch 8/1000
120/120 [=====] - 20s 163ms/step - loss: 77.1685 - reconstruction_error: 63.4338 - regularization_error: 13.7347 - val_loss: 79.1261 - val_reconstruction_error: 65.1655 - val_regularization_error: 13.9606
Epoch 9/1000
120/120 [=====] - 20s 166ms/step - loss: 75.8488 - reconstruction_error: 61.9315 - regularization_error: 13.9173 - val_loss: 76.1681 - val_reconstruction_error: 62.2115 - val_regularization_error: 13.9566
Epoch 10/1000
120/120 [=====] - 17s 136ms/step - loss: 73.9681 - reconstruction_error: 59.6446 - regularization_error: 14.3234 - val_loss: 74.9826 - val_reconstruction_error: 61.1931 - val_regularization_error: 13.7895
Epoch 11/1000
120/120 [=====] - ETA: 0s - loss: 72.6465 - reconstruction_error: 58.0472 - regularization_error: 14.5993
[2023-12-01 09:46:04.232333]: Reconstructing images for epoch 11 ...
```



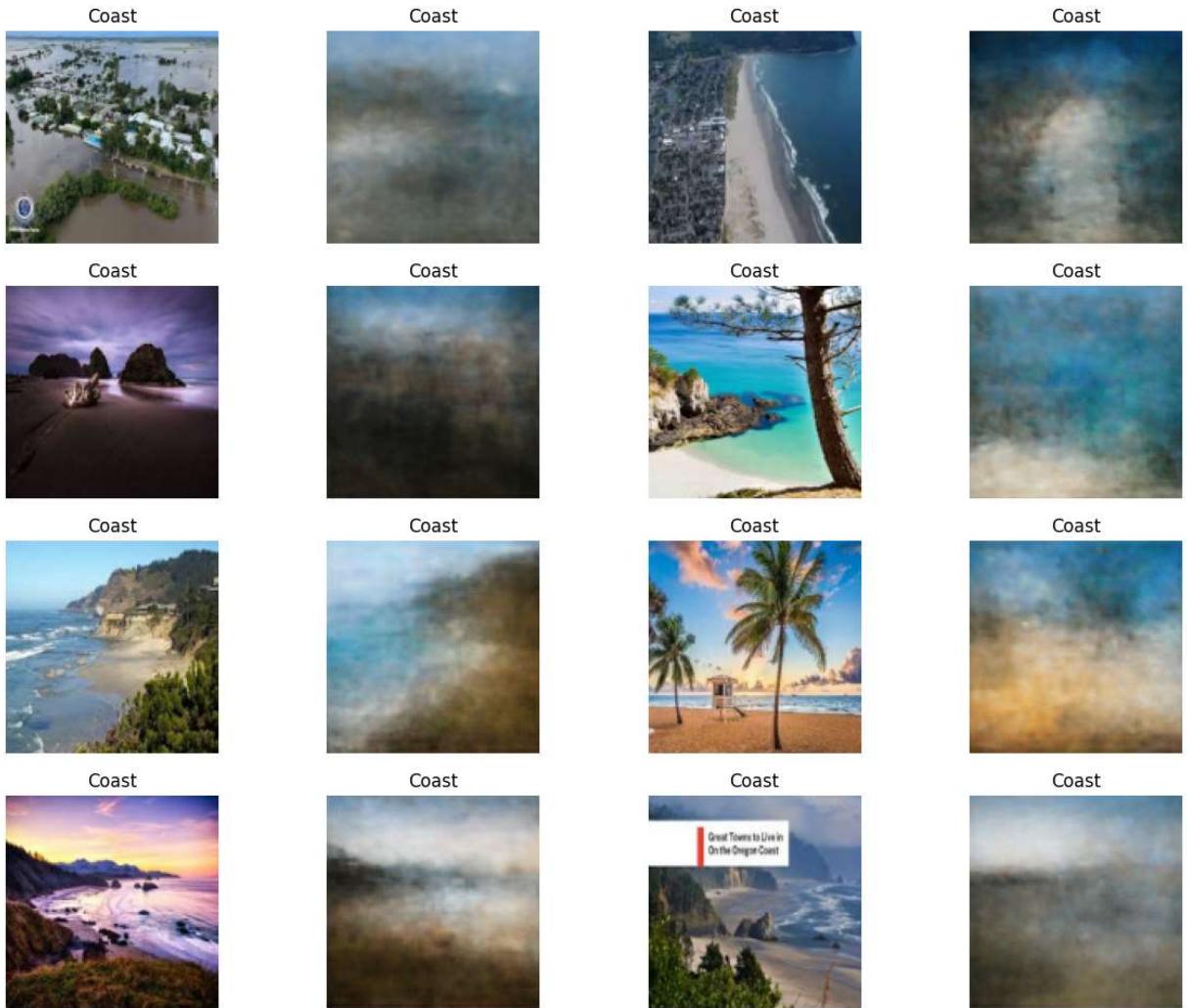
```
120/120 [=====] - 23s 186ms/step - loss: 72.6465 - reconstruction_error: 58.0472 - regularization_error: 14.5993 - val_loss: 73.2947 - val_reconstruction_error: 58.5868 - val_regularization_error: 14.7079
Epoch 12/1000
120/120 [=====] - 17s 145ms/step - loss: 71.3959 - reconstruction_error: 56.4333 - regularization_error: 14.9625 - val_loss: 71.8705 - val_reconstruction_error: 57.9597 - val_regularization_error: 13.9108
Epoch 13/1000
120/120 [=====] - 20s 163ms/step - loss: 70.8571 - reconstruction_error: 55.8070 - regularization_error: 15.0501 - val_loss: 72.4167 - val_reconstruction_error: 58.0636 - val_regularization_error: 14.3531
Epoch 14/1000
120/120 [=====] - 19s 159ms/step - loss: 70.4772 - reconstruction_error: 55.2952 - regularization_error: 15.1821 - val_loss: 72.2912 - val_reconstruction_error: 57.0034 - val_regularization_error: 15.2878
Epoch 15/1000
120/120 [=====] - 20s 162ms/step - loss: 69.3502 - reconstruction_error: 54.0035 - regularization_error: 15.3467 - val_loss: 70.7016 - val_reconstruction_error: 54.9589 - val_regularization_error: 15.7427
Epoch 16/1000
120/120 [=====] - 16s 134ms/step - loss: 68.9476 - reconstruction_error: 53.4716 - regularization_error: 15.4760 - val_loss: 70.5073 - val_reconstruction_error: 54.5593 - val_regularization_error: 15.9480
Epoch 17/1000
120/120 [=====] - 20s 163ms/step - loss: 68.7269 - reconstruction_error: 53.4065 - regularization_error: 15.3204 - val_loss: 71.5571 - val_reconstruction_error: 55.1031 - val_regularization_error: 16.4540
Epoch 18/1000
120/120 [=====] - 18s 144ms/step - loss: 67.9243 - reconstruction_error: 52.4694 - regularization_error: 15.4550 - val_loss: 70.0685 - val_reconstruction_error: 55.3604 - val_regularization_error: 14.7081
Epoch 19/1000
120/120 [=====] - 19s 154ms/step - loss: 67.9206 - reconstruction_error: 52.4126 - regularization_error: 15.5080 - val_loss: 69.9339 - val_reconstruction_error: 54.8882 - val_regularization_error: 15.0457
Epoch 20/1000
120/120 [=====] - 16s 131ms/step - loss: 67.5686 - reconstruction_error: 51.9435 - regularization_error: 15.6251 - val_loss: 70.0390 - val_reconstruction_error: 54.1958 - val_regularization_error: 15.8432
Epoch 21/1000
120/120 [=====] - ETA: 0s - loss: 67.5286 - reconstruction_error: 51.8724 - regularization_error: 15.6562
[2023-12-01 09:49:12.756457]: Reconstructing images for epoch 21 ...
```



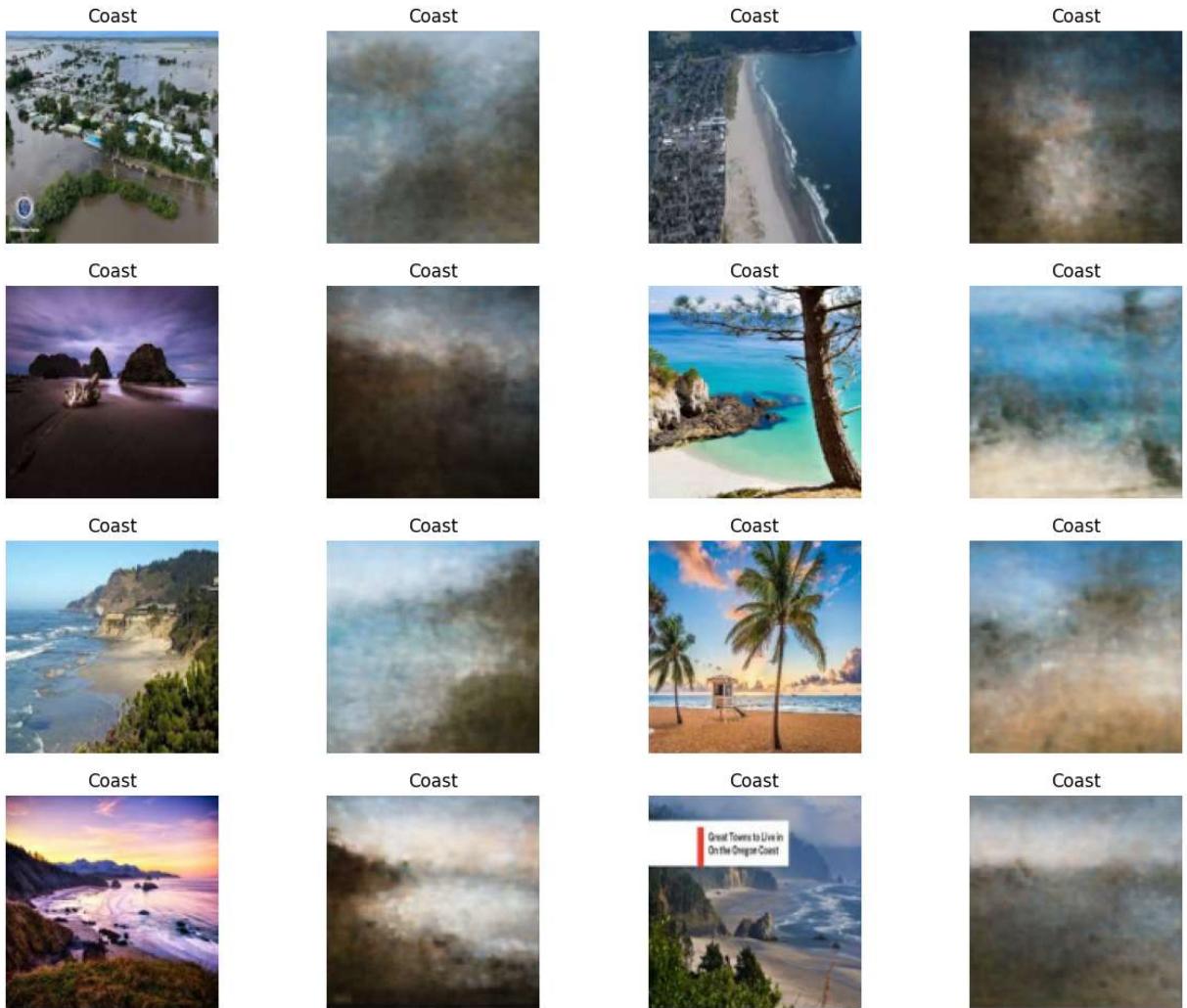
```
120/120 [=====] - 24s 195ms/step - loss: 67.5286 - reconstruction_error: 51.8724 - regularization_error: 15.6562 - val_loss: 70.5682 - val_reconstruction_error: 54.8432 - val_regularization_error: 15.7251
Epoch 22/1000
120/120 [=====] - 19s 155ms/step - loss: 67.7338 - reconstruction_error: 51.7999 - regularization_error: 15.9340 - val_loss: 70.3251 - val_reconstruction_error: 55.4790 - val_regularization_error: 14.8461
Epoch 23/1000
120/120 [=====] - 19s 153ms/step - loss: 66.9996 - reconstruction_error: 51.1470 - regularization_error: 15.8526 - val_loss: 68.9380 - val_reconstruction_error: 53.4886 - val_regularization_error: 15.4494
Epoch 24/1000
120/120 [=====] - 23s 188ms/step - loss: 66.4085 - reconstruction_error: 50.5447 - regularization_error: 15.8638 - val_loss: 69.3707 - val_reconstruction_error: 53.1925 - val_regularization_error: 16.1782
Epoch 25/1000
120/120 [=====] - 17s 139ms/step - loss: 66.5504 - reconstruction_error: 50.4883 - regularization_error: 16.0620 - val_loss: 69.1942 - val_reconstruction_error: 52.2154 - val_regularization_error: 16.9788
Epoch 26/1000
120/120 [=====] - 20s 166ms/step - loss: 66.3357 - reconstruction_error: 50.1534 - regularization_error: 16.1823 - val_loss: 69.2692 - val_reconstruction_error: 52.7636 - val_regularization_error: 16.5056
Epoch 27/1000
120/120 [=====] - 15s 124ms/step - loss: 66.2257 - reconstruction_error: 49.9719 - regularization_error: 16.2538 - val_loss: 68.7841 - val_reconstruction_error: 53.3545 - val_regularization_error: 15.4296
Epoch 28/1000
120/120 [=====] - 20s 164ms/step - loss: 65.9508 - reconstruction_error: 49.7069 - regularization_error: 16.2439 - val_loss: 70.3569 - val_reconstruction_error: 53.4966 - val_regularization_error: 16.8603
Epoch 29/1000
120/120 [=====] - 18s 146ms/step - loss: 66.0772 - reconstruction_error: 49.7677 - regularization_error: 16.3095 - val_loss: 69.3792 - val_reconstruction_error: 54.7119 - val_regularization_error: 14.6673
Epoch 30/1000
120/120 [=====] - 18s 147ms/step - loss: 65.9467 - reconstruction_error: 49.4352 - regularization_error: 16.5115 - val_loss: 68.7232 - val_reconstruction_error: 52.6273 - val_regularization_error: 16.0959
Epoch 31/1000
120/120 [=====] - ETA: 0s - loss: 65.1836 - reconstruction_error: 48.7628 - regularization_error: 16.4208
[2023-12-01 09:52:24.161600]: Reconstructing images for epoch 31 ...
```



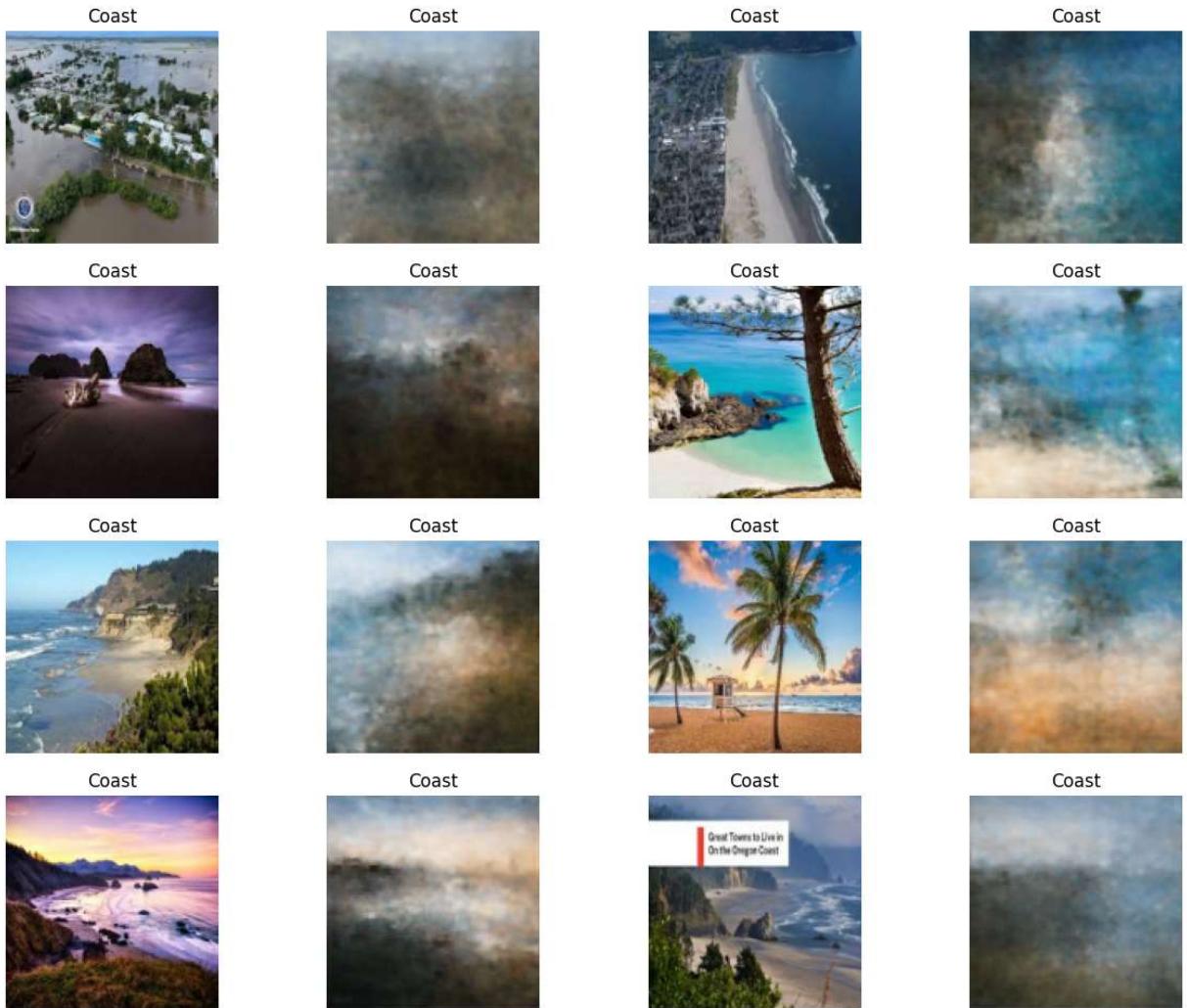
```
120/120 [=====] - 22s 179ms/step - loss: 65.1836 - reconstruction_error: 48.7628 - regularization_error: 16.4208 - val_loss: 69.5154 - val_reconstruction_error: 53.2235 - val_regularization_error: 16.2919
Epoch 32/1000
120/120 [=====] - 18s 153ms/step - loss: 65.7485 - reconstruction_error: 49.2829 - regularization_error: 16.4657 - val_loss: 69.7684 - val_reconstruction_error: 52.7409 - val_regularization_error: 17.0275
Epoch 33/1000
120/120 [=====] - 17s 139ms/step - loss: 65.3428 - reconstruction_error: 48.6457 - regularization_error: 16.6971 - val_loss: 69.5267 - val_reconstruction_error: 53.1757 - val_regularization_error: 16.3510
Epoch 34/1000
120/120 [=====] - 17s 137ms/step - loss: 65.1681 - reconstruction_error: 48.4708 - regularization_error: 16.6973 - val_loss: 69.8956 - val_reconstruction_error: 52.6567 - val_regularization_error: 17.2389
Epoch 35/1000
120/120 [=====] - 15s 126ms/step - loss: 64.9066 - reconstruction_error: 48.1660 - regularization_error: 16.7406 - val_loss: 69.2191 - val_reconstruction_error: 51.7766 - val_regularization_error: 17.4426
Epoch 36/1000
120/120 [=====] - 18s 151ms/step - loss: 64.7257 - reconstruction_error: 47.8684 - regularization_error: 16.8572 - val_loss: 68.9291 - val_reconstruction_error: 51.3541 - val_regularization_error: 17.5750
Epoch 37/1000
120/120 [=====] - 18s 146ms/step - loss: 64.5000 - reconstruction_error: 47.6397 - regularization_error: 16.8602 - val_loss: 68.8932 - val_reconstruction_error: 52.8659 - val_regularization_error: 16.0273
Epoch 38/1000
120/120 [=====] - 16s 136ms/step - loss: 64.3018 - reconstruction_error: 47.5360 - regularization_error: 16.7658 - val_loss: 69.5621 - val_reconstruction_error: 53.2181 - val_regularization_error: 16.3440
Epoch 39/1000
120/120 [=====] - 20s 165ms/step - loss: 64.3729 - reconstruction_error: 47.2571 - regularization_error: 17.1158 - val_loss: 69.5956 - val_reconstruction_error: 53.0367 - val_regularization_error: 16.5589
Epoch 40/1000
120/120 [=====] - 16s 130ms/step - loss: 63.9993 - reconstruction_error: 47.0620 - regularization_error: 16.9372 - val_loss: 68.9585 - val_reconstruction_error: 53.1294 - val_regularization_error: 15.8291
Epoch 41/1000
120/120 [=====] - ETA: 0s - loss: 64.0333 - reconstruction_error: 46.8881 - regularization_error: 17.1452
[2023-12-01 09:55:23.630388]: Reconstructing images for epoch 41 ...
```



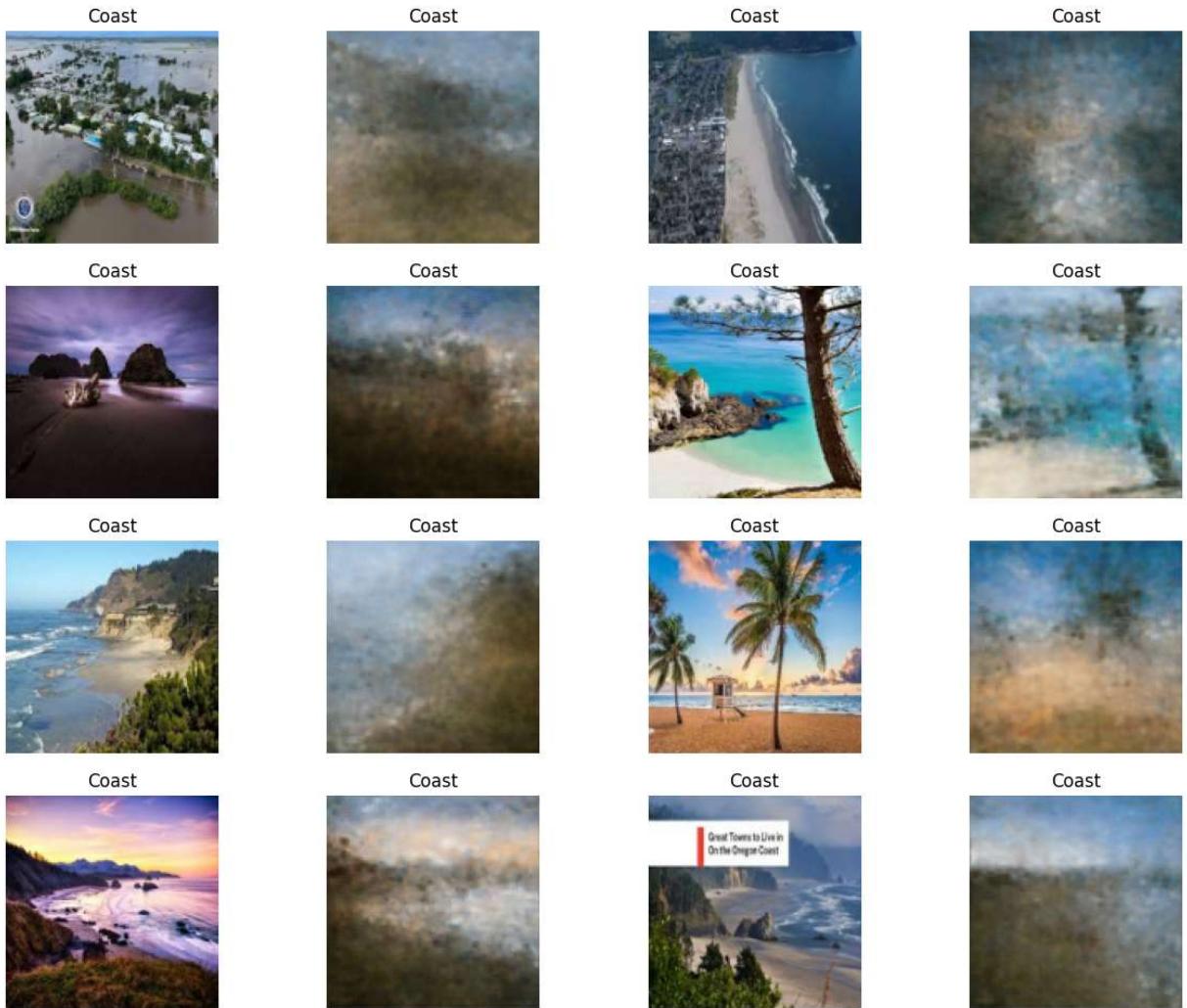
```
120/120 [=====] - 22s 183ms/step - loss: 64.0333 - reconstruction_error: 46.8881 - regularization_error: 17.1452 - val_loss: 69.1215 - val_reconstruction_error: 52.0983 - val_regularization_error: 17.0231
Epoch 42/1000
120/120 [=====] - 18s 148ms/step - loss: 63.9385 - reconstruction_error: 46.7309 - regularization_error: 17.2076 - val_loss: 68.9627 - val_reconstruction_error: 53.2342 - val_regularization_error: 15.7286
Epoch 43/1000
120/120 [=====] - 17s 141ms/step - loss: 63.7747 - reconstruction_error: 46.6429 - regularization_error: 17.1318 - val_loss: 68.8583 - val_reconstruction_error: 51.3305 - val_regularization_error: 17.5278
Epoch 44/1000
120/120 [=====] - 19s 157ms/step - loss: 63.6206 - reconstruction_error: 46.5135 - regularization_error: 17.1071 - val_loss: 69.1374 - val_reconstruction_error: 52.1012 - val_regularization_error: 17.0362
Epoch 45/1000
120/120 [=====] - 17s 143ms/step - loss: 63.3427 - reconstruction_error: 46.0871 - regularization_error: 17.2556 - val_loss: 68.8162 - val_reconstruction_error: 52.3231 - val_regularization_error: 16.4931
Epoch 46/1000
120/120 [=====] - 18s 151ms/step - loss: 63.3690 - reconstruction_error: 45.9511 - regularization_error: 17.4178 - val_loss: 69.2903 - val_reconstruction_error: 51.7717 - val_regularization_error: 17.5186
Epoch 47/1000
120/120 [=====] - 18s 146ms/step - loss: 63.1832 - reconstruction_error: 45.6306 - regularization_error: 17.5526 - val_loss: 68.7503 - val_reconstruction_error: 52.8255 - val_regularization_error: 15.9249
Epoch 48/1000
120/120 [=====] - 18s 148ms/step - loss: 63.0499 - reconstruction_error: 45.5817 - regularization_error: 17.4682 - val_loss: 70.2594 - val_reconstruction_error: 53.8087 - val_regularization_error: 16.4507
Epoch 49/1000
120/120 [=====] - 19s 153ms/step - loss: 62.8859 - reconstruction_error: 45.3679 - regularization_error: 17.5180 - val_loss: 69.9484 - val_reconstruction_error: 53.6458 - val_regularization_error: 16.3026
Epoch 50/1000
120/120 [=====] - 22s 178ms/step - loss: 63.0325 - reconstruction_error: 45.4412 - regularization_error: 17.5913 - val_loss: 70.7862 - val_reconstruction_error: 53.9522 - val_regularization_error: 16.8340
Epoch 51/1000
120/120 [=====] - ETA: 0s - loss: 62.5343 - reconstruction_error: 44.7572 - regularization_error: 17.7771
[2023-12-01 09:58:31.723812]: Reconstructing images for epoch 51 ...
```



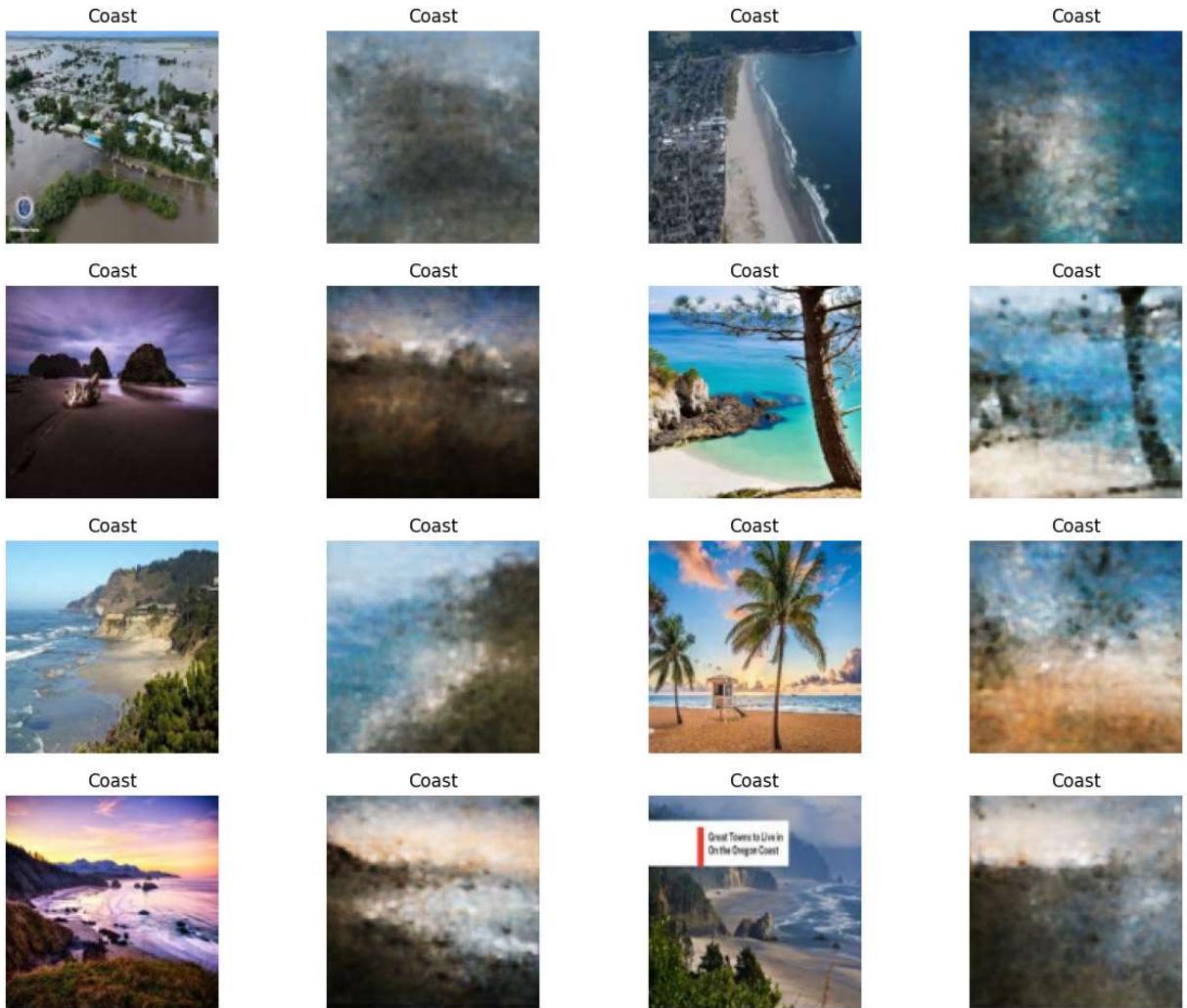
```
120/120 [=====] - 21s 176ms/step - loss: 62.5343 - reconstruction_error: 44.7572 - regularization_error: 17.7771 - val_loss: 70.4727 - val_reconstruction_error: 52.8267 - val_regularization_error: 17.6460
Epoch 52/1000
120/120 [=====] - 15s 126ms/step - loss: 62.6379 - reconstruction_error: 44.8102 - regularization_error: 17.8277 - val_loss: 70.0054 - val_reconstruction_error: 50.9490 - val_regularization_error: 19.0564
Epoch 53/1000
120/120 [=====] - 20s 164ms/step - loss: 62.4767 - reconstruction_error: 44.4645 - regularization_error: 18.0122 - val_loss: 70.1702 - val_reconstruction_error: 51.7988 - val_regularization_error: 18.3714
Epoch 54/1000
120/120 [=====] - 19s 159ms/step - loss: 62.1817 - reconstruction_error: 44.1344 - regularization_error: 18.0473 - val_loss: 69.6036 - val_reconstruction_error: 52.5130 - val_regularization_error: 17.0906
Epoch 55/1000
120/120 [=====] - 19s 158ms/step - loss: 62.3013 - reconstruction_error: 44.3419 - regularization_error: 17.9594 - val_loss: 70.5513 - val_reconstruction_error: 53.8205 - val_regularization_error: 16.7309
Epoch 56/1000
120/120 [=====] - 18s 150ms/step - loss: 61.8310 - reconstruction_error: 43.7537 - regularization_error: 18.0774 - val_loss: 70.2778 - val_reconstruction_error: 52.7257 - val_regularization_error: 17.5522
Epoch 57/1000
120/120 [=====] - 17s 144ms/step - loss: 61.7676 - reconstruction_error: 43.6305 - regularization_error: 18.1371 - val_loss: 70.6044 - val_reconstruction_error: 52.5501 - val_regularization_error: 18.0543
Epoch 58/1000
120/120 [=====] - 20s 166ms/step - loss: 61.8003 - reconstruction_error: 43.5546 - regularization_error: 18.2456 - val_loss: 70.8290 - val_reconstruction_error: 53.1127 - val_regularization_error: 17.7163
Epoch 59/1000
120/120 [=====] - 21s 172ms/step - loss: 61.3874 - reconstruction_error: 43.1417 - regularization_error: 18.2457 - val_loss: 70.6102 - val_reconstruction_error: 53.2978 - val_regularization_error: 17.3124
Epoch 60/1000
120/120 [=====] - 19s 154ms/step - loss: 61.2687 - reconstruction_error: 42.8910 - regularization_error: 18.3778 - val_loss: 70.0865 - val_reconstruction_error: 52.4117 - val_regularization_error: 17.6748
Epoch 61/1000
120/120 [=====] - ETA: 0s - loss: 60.8872 - reconstruction_error: 42.5821 - regularization_error: 18.3051
[2023-12-01 10:01:43.284768]: Reconstructing images for epoch 61 ...
```



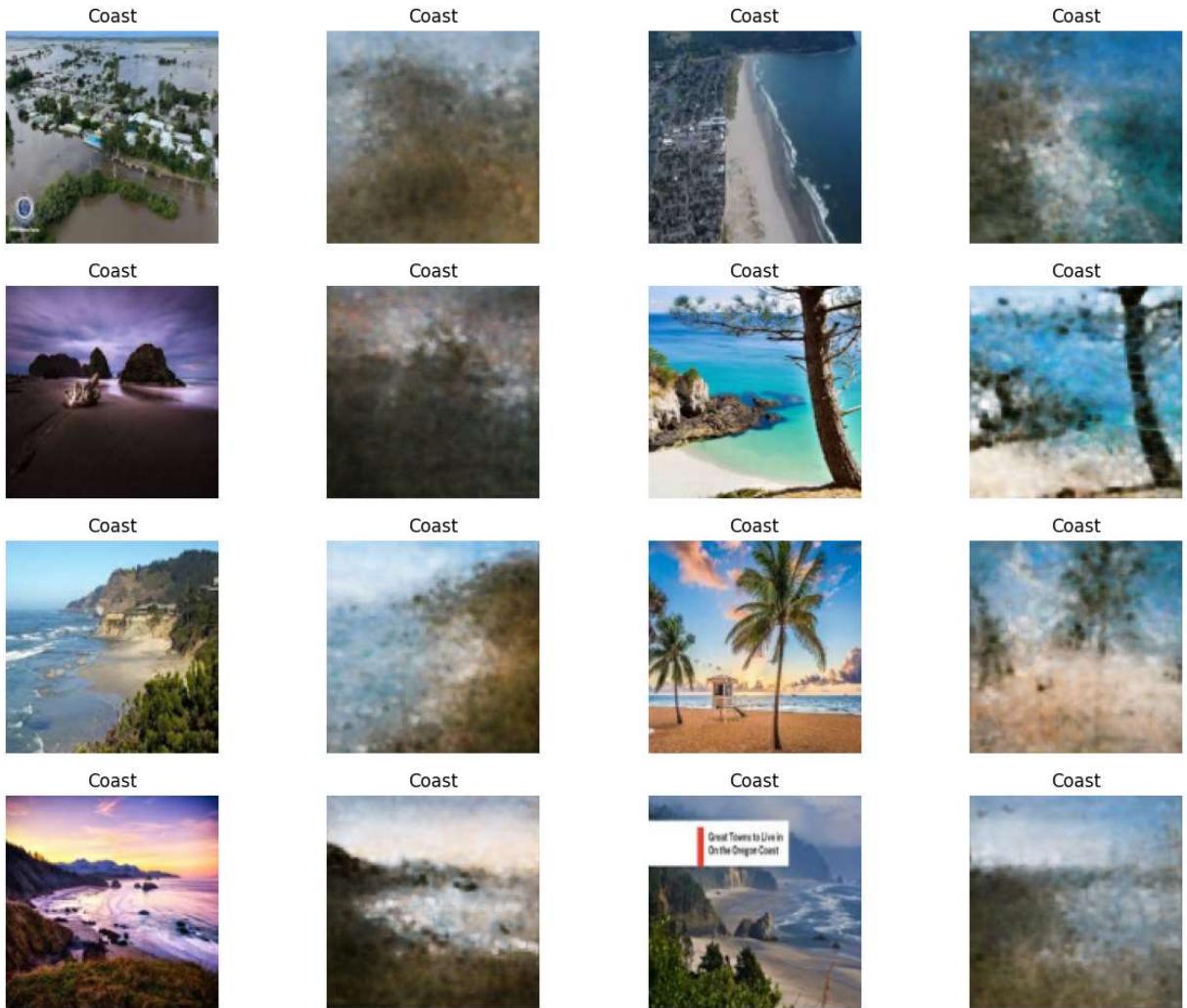
```
120/120 [=====] - 21s 175ms/step - loss: 60.8872 - reconstruction_error: 42.5821 - regularization_error: 18.3051 - val_loss: 71.0393 - val_reconstruction_error: 52.0427 - val_regularization_error: 18.9967
Epoch 62/1000
120/120 [=====] - 18s 151ms/step - loss: 61.0266 - reconstruction_error: 42.4999 - regularization_error: 18.5266 - val_loss: 70.6666 - val_reconstruction_error: 51.0936 - val_regularization_error: 19.5730
Epoch 63/1000
120/120 [=====] - 19s 156ms/step - loss: 61.1044 - reconstruction_error: 42.4261 - regularization_error: 18.6783 - val_loss: 71.8096 - val_reconstruction_error: 53.3213 - val_regularization_error: 18.4883
Epoch 64/1000
120/120 [=====] - 20s 167ms/step - loss: 60.6985 - reconstruction_error: 42.1518 - regularization_error: 18.5467 - val_loss: 70.2928 - val_reconstruction_error: 52.2721 - val_regularization_error: 18.0207
Epoch 65/1000
120/120 [=====] - 15s 126ms/step - loss: 60.7607 - reconstruction_error: 42.0361 - regularization_error: 18.7246 - val_loss: 69.9096 - val_reconstruction_error: 52.8545 - val_regularization_error: 17.0552
Epoch 66/1000
120/120 [=====] - 15s 124ms/step - loss: 60.5047 - reconstruction_error: 41.9092 - regularization_error: 18.5956 - val_loss: 70.5601 - val_reconstruction_error: 53.0839 - val_regularization_error: 17.4762
Epoch 67/1000
120/120 [=====] - 19s 160ms/step - loss: 60.0802 - reconstruction_error: 41.2631 - regularization_error: 18.8170 - val_loss: 70.7276 - val_reconstruction_error: 53.1414 - val_regularization_error: 17.5862
Epoch 68/1000
120/120 [=====] - 18s 147ms/step - loss: 60.2260 - reconstruction_error: 41.2778 - regularization_error: 18.9482 - val_loss: 71.2657 - val_reconstruction_error: 52.5186 - val_regularization_error: 18.7471
Epoch 69/1000
120/120 [=====] - 17s 139ms/step - loss: 60.1581 - reconstruction_error: 41.0820 - regularization_error: 19.0761 - val_loss: 71.9324 - val_reconstruction_error: 52.2188 - val_regularization_error: 19.7136
Epoch 70/1000
120/120 [=====] - 18s 150ms/step - loss: 59.6389 - reconstruction_error: 40.7224 - regularization_error: 18.9166 - val_loss: 70.7832 - val_reconstruction_error: 52.9717 - val_regularization_error: 17.8115
Epoch 71/1000
120/120 [=====] - ETA: 0s - loss: 59.4028 - reconstruction_error: 40.3651 - regularization_error: 19.0377
[2023-12-01 10:04:49.059108]: Reconstructing images for epoch 71 ...
```



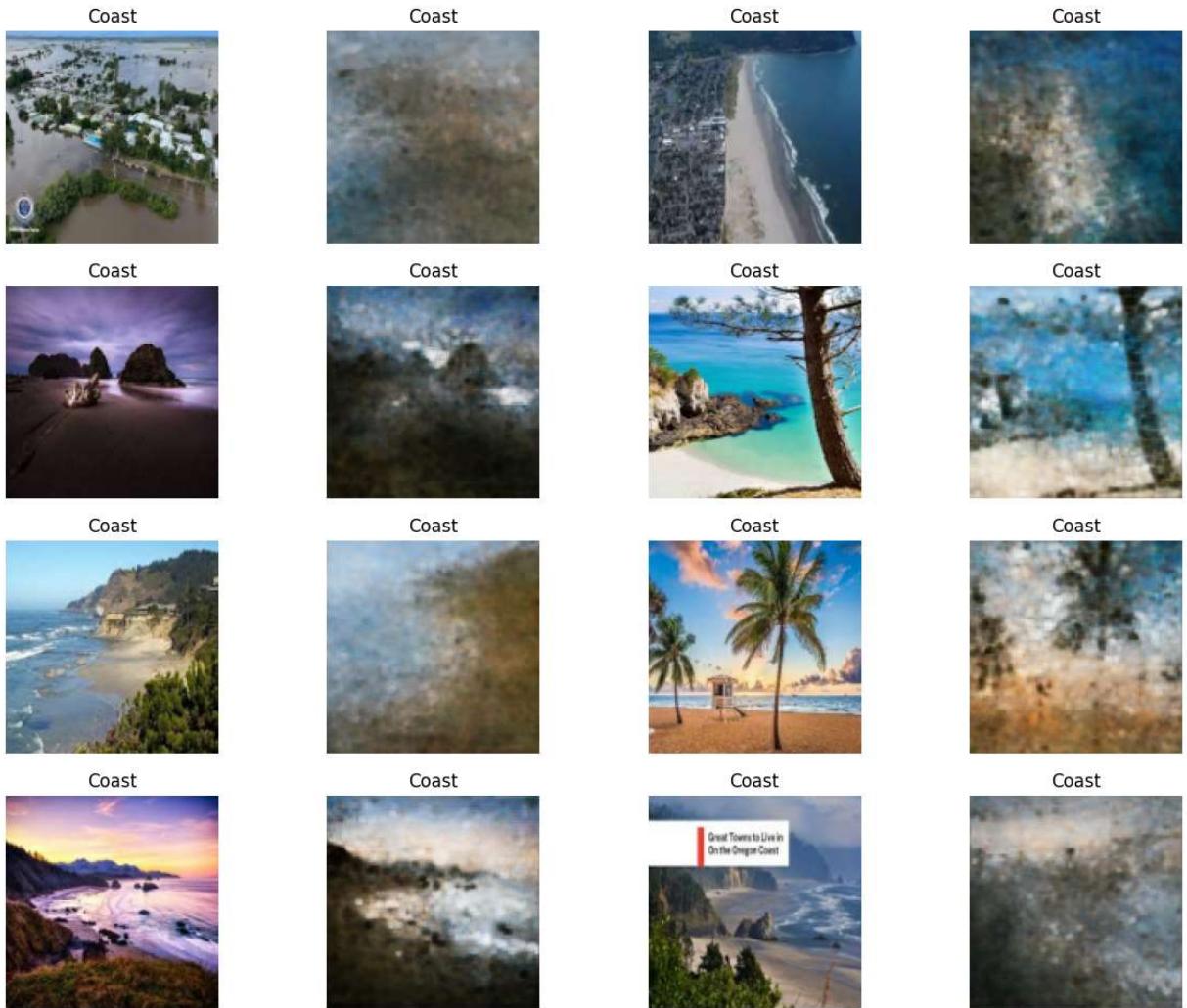
```
120/120 [=====] - 23s 188ms/step - loss: 59.4028 - reconstruction_error: 40.3651 - regularization_error: 19.0377 - val_loss: 70.9102 - val_reconstruction_error: 52.5591 - val_regularization_error: 18.3511
Epoch 72/1000
120/120 [=====] - 18s 149ms/step - loss: 59.4382 - reconstruction_error: 40.3777 - regularization_error: 19.0605 - val_loss: 72.8685 - val_reconstruction_error: 52.9777 - val_regularization_error: 19.8908
Epoch 73/1000
120/120 [=====] - 19s 156ms/step - loss: 59.9754 - reconstruction_error: 40.8224 - regularization_error: 19.1530 - val_loss: 71.4053 - val_reconstruction_error: 53.4470 - val_regularization_error: 17.9583
Epoch 74/1000
120/120 [=====] - 19s 161ms/step - loss: 59.4004 - reconstruction_error: 40.2467 - regularization_error: 19.1537 - val_loss: 71.1712 - val_reconstruction_error: 52.9139 - val_regularization_error: 18.2573
Epoch 75/1000
120/120 [=====] - 16s 131ms/step - loss: 59.7251 - reconstruction_error: 40.3401 - regularization_error: 19.3850 - val_loss: 71.2046 - val_reconstruction_error: 53.2743 - val_regularization_error: 17.9304
Epoch 76/1000
120/120 [=====] - 18s 149ms/step - loss: 58.8907 - reconstruction_error: 39.5315 - regularization_error: 19.3592 - val_loss: 71.3787 - val_reconstruction_error: 52.3984 - val_regularization_error: 18.9803
Epoch 77/1000
120/120 [=====] - 20s 162ms/step - loss: 58.5081 - reconstruction_error: 39.1806 - regularization_error: 19.3275 - val_loss: 72.2587 - val_reconstruction_error: 52.8039 - val_regularization_error: 19.4548
Epoch 78/1000
120/120 [=====] - 17s 140ms/step - loss: 58.2783 - reconstruction_error: 39.0543 - regularization_error: 19.2240 - val_loss: 71.5743 - val_reconstruction_error: 52.5144 - val_regularization_error: 19.0599
Epoch 79/1000
120/120 [=====] - 16s 132ms/step - loss: 58.3906 - reconstruction_error: 38.9268 - regularization_error: 19.4638 - val_loss: 71.4549 - val_reconstruction_error: 52.6932 - val_regularization_error: 18.7616
Epoch 80/1000
120/120 [=====] - 17s 139ms/step - loss: 58.6310 - reconstruction_error: 38.9982 - regularization_error: 19.6328 - val_loss: 71.4576 - val_reconstruction_error: 52.5346 - val_regularization_error: 18.9230
Epoch 81/1000
120/120 [=====] - ETA: 0s - loss: 58.0391 - reconstruction_error: 38.5937 - regularization_error: 19.4454
[2023-12-01 10:07:55.117317]: Reconstructing images for epoch 81 ...
```



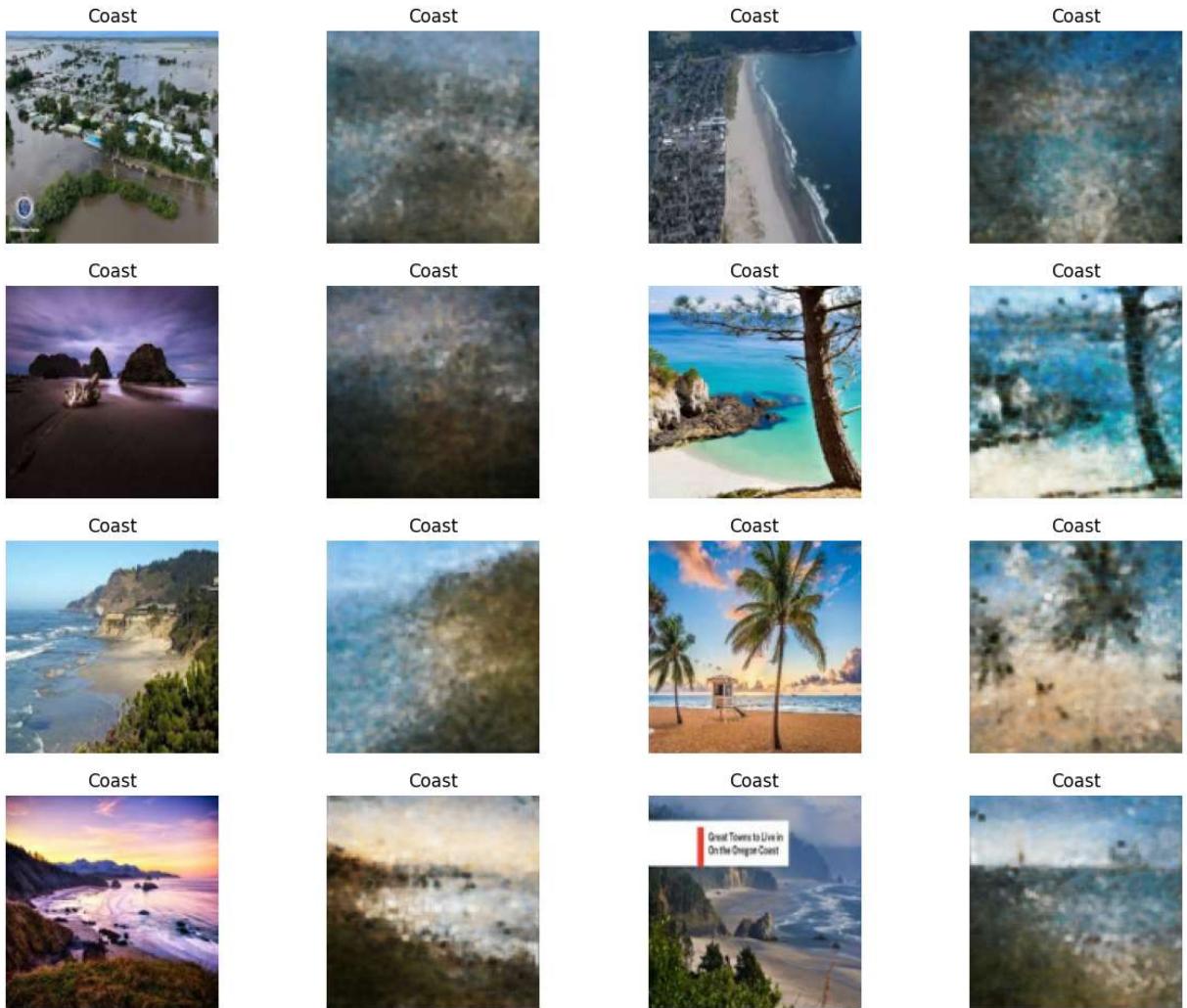
```
120/120 [=====] - 23s 187ms/step - loss: 58.0391 - reconstruction_error: 38.5937 - regularization_error: 19.4454 - val_loss: 74.3621 - val_reconstruction_error: 53.6855 - val_regularization_error: 20.6765
Epoch 82/1000
120/120 [=====] - 22s 183ms/step - loss: 58.1797 - reconstruction_error: 38.5714 - regularization_error: 19.6083 - val_loss: 72.0132 - val_reconstruction_error: 52.3558 - val_regularization_error: 19.6575
Epoch 83/1000
120/120 [=====] - 19s 154ms/step - loss: 57.8703 - reconstruction_error: 38.2196 - regularization_error: 19.6508 - val_loss: 72.7727 - val_reconstruction_error: 53.3290 - val_regularization_error: 19.4437
Epoch 84/1000
120/120 [=====] - 17s 142ms/step - loss: 57.5904 - reconstruction_error: 37.8766 - regularization_error: 19.7138 - val_loss: 73.2356 - val_reconstruction_error: 53.5513 - val_regularization_error: 19.6843
Epoch 85/1000
120/120 [=====] - 18s 145ms/step - loss: 57.7607 - reconstruction_error: 37.9510 - regularization_error: 19.8097 - val_loss: 71.5905 - val_reconstruction_error: 53.1675 - val_regularization_error: 18.4230
Epoch 86/1000
120/120 [=====] - 18s 149ms/step - loss: 57.5798 - reconstruction_error: 37.7035 - regularization_error: 19.8764 - val_loss: 72.7907 - val_reconstruction_error: 54.4545 - val_regularization_error: 18.3362
Epoch 87/1000
120/120 [=====] - 19s 156ms/step - loss: 57.3296 - reconstruction_error: 37.5044 - regularization_error: 19.8252 - val_loss: 72.2677 - val_reconstruction_error: 52.4371 - val_regularization_error: 19.8306
Epoch 88/1000
120/120 [=====] - 17s 144ms/step - loss: 57.2236 - reconstruction_error: 37.3523 - regularization_error: 19.8713 - val_loss: 73.3637 - val_reconstruction_error: 52.9944 - val_regularization_error: 20.3692
Epoch 89/1000
120/120 [=====] - 20s 163ms/step - loss: 57.0380 - reconstruction_error: 37.0694 - regularization_error: 19.9686 - val_loss: 72.5754 - val_reconstruction_error: 53.4513 - val_regularization_error: 19.1241
Epoch 90/1000
120/120 [=====] - 18s 152ms/step - loss: 57.1207 - reconstruction_error: 37.1221 - regularization_error: 19.9986 - val_loss: 72.6898 - val_reconstruction_error: 53.0112 - val_regularization_error: 19.6786
Epoch 91/1000
120/120 [=====] - ETA: 0s - loss: 57.0801 - reconstruction_error: 36.9996 - regularization_error: 20.0805
[2023-12-01 10:11:06.561587]: Reconstructing images for epoch 91 ...
```



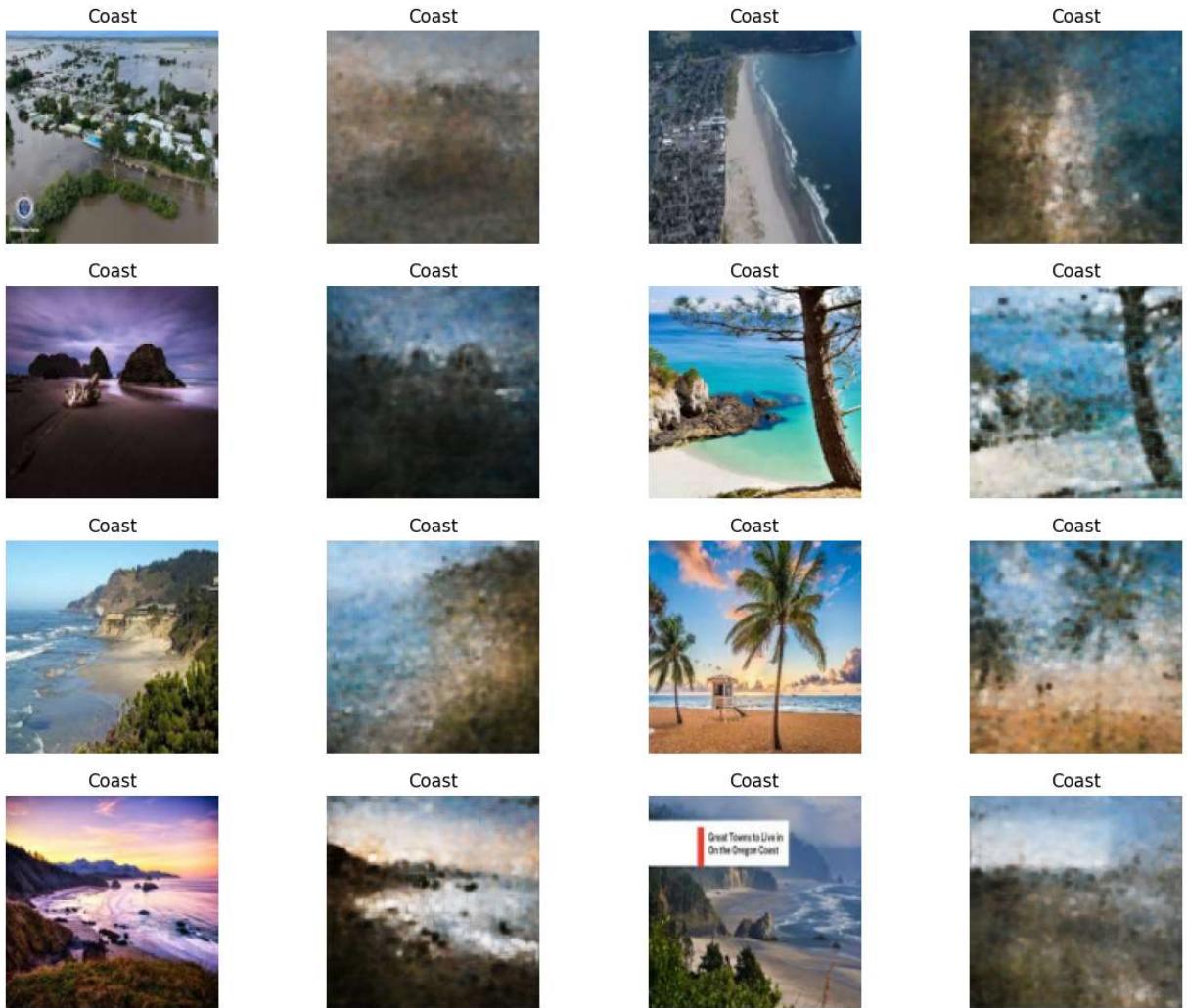
```
120/120 [=====] - 22s 177ms/step - loss: 57.0801 - reconstruction_error: 36.9996 - regularization_error: 20.0805 - val_loss: 73.7371 - val_reconstruction_error: 53.8840 - val_regularization_error: 19.8531
Epoch 92/1000
120/120 [=====] - 18s 150ms/step - loss: 56.5774 - reconstruction_error: 36.5286 - regularization_error: 20.0488 - val_loss: 72.4554 - val_reconstruction_error: 53.7917 - val_regularization_error: 18.6637
Epoch 93/1000
120/120 [=====] - 20s 166ms/step - loss: 56.6410 - reconstruction_error: 36.4763 - regularization_error: 20.1647 - val_loss: 74.7419 - val_reconstruction_error: 53.5784 - val_regularization_error: 21.1635
Epoch 94/1000
120/120 [=====] - 19s 155ms/step - loss: 56.4741 - reconstruction_error: 36.2502 - regularization_error: 20.2240 - val_loss: 73.4164 - val_reconstruction_error: 53.5126 - val_regularization_error: 19.9038
Epoch 95/1000
120/120 [=====] - 18s 151ms/step - loss: 56.4895 - reconstruction_error: 36.4137 - regularization_error: 20.0758 - val_loss: 73.3951 - val_reconstruction_error: 54.9012 - val_regularization_error: 18.4939
Epoch 96/1000
120/120 [=====] - 18s 147ms/step - loss: 56.5700 - reconstruction_error: 36.2350 - regularization_error: 20.3350 - val_loss: 73.2242 - val_reconstruction_error: 54.2680 - val_regularization_error: 18.9563
Epoch 97/1000
120/120 [=====] - 20s 162ms/step - loss: 56.5320 - reconstruction_error: 36.0809 - regularization_error: 20.4510 - val_loss: 72.4497 - val_reconstruction_error: 53.0669 - val_regularization_error: 19.3828
Epoch 98/1000
120/120 [=====] - 18s 150ms/step - loss: 55.9569 - reconstruction_error: 35.7125 - regularization_error: 20.2444 - val_loss: 72.8084 - val_reconstruction_error: 53.5193 - val_regularization_error: 19.2891
Epoch 99/1000
120/120 [=====] - 18s 148ms/step - loss: 55.9095 - reconstruction_error: 35.4778 - regularization_error: 20.4316 - val_loss: 73.2737 - val_reconstruction_error: 54.0165 - val_regularization_error: 19.2572
Epoch 100/1000
120/120 [=====] - 19s 153ms/step - loss: 55.6585 - reconstruction_error: 35.3523 - regularization_error: 20.3062 - val_loss: 72.9536 - val_reconstruction_error: 53.3436 - val_regularization_error: 19.6100
Epoch 101/1000
120/120 [=====] - ETA: 0s - loss: 55.7579 - reconstruction_error: 35.3837 - regularization_error: 20.3743
[2023-12-01 10:14:16.679594]: Reconstructing images for epoch 101 ...
```



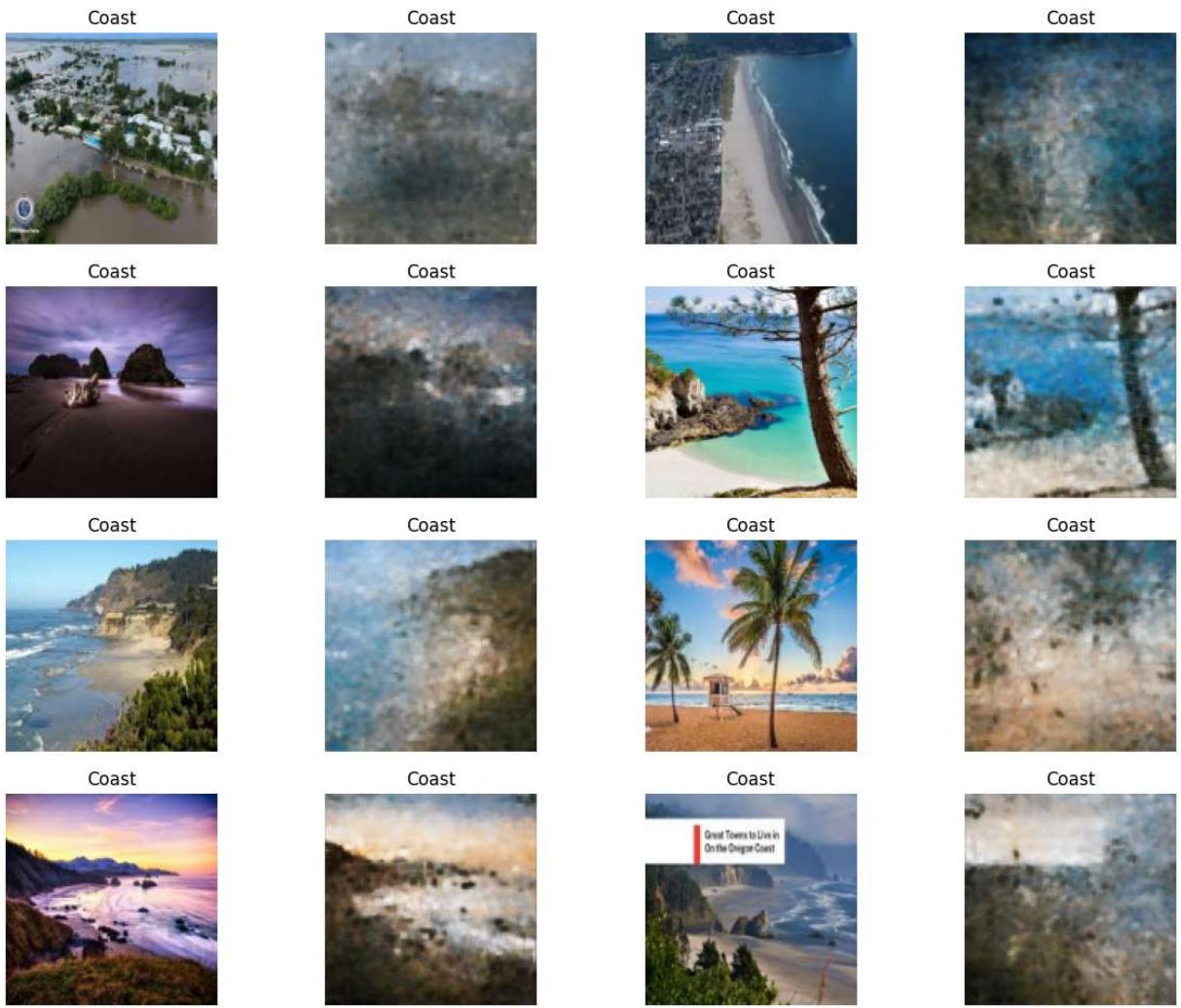
```
120/120 [=====] - 20s 170ms/step - loss: 55.7579 - reconstruction_error: 35.3837 - regularization_error: 20.3743 - val_loss: 74.2984 - val_reconstruction_error: 54.3300 - val_regularization_error: 19.9684
Epoch 102/1000
120/120 [=====] - 21s 171ms/step - loss: 55.4985 - reconstruction_error: 35.0661 - regularization_error: 20.4324 - val_loss: 73.4249 - val_reconstruction_error: 54.1646 - val_regularization_error: 19.2602
Epoch 103/1000
120/120 [=====] - 19s 156ms/step - loss: 55.2431 - reconstruction_error: 34.8329 - regularization_error: 20.4102 - val_loss: 74.0349 - val_reconstruction_error: 53.9954 - val_regularization_error: 20.0396
Epoch 104/1000
120/120 [=====] - 19s 155ms/step - loss: 55.1551 - reconstruction_error: 34.7861 - regularization_error: 20.3690 - val_loss: 74.7412 - val_reconstruction_error: 52.8687 - val_regularization_error: 21.8725
Epoch 105/1000
120/120 [=====] - 20s 163ms/step - loss: 54.8954 - reconstruction_error: 34.4338 - regularization_error: 20.4616 - val_loss: 72.9809 - val_reconstruction_error: 53.8225 - val_regularization_error: 19.1585
Epoch 106/1000
120/120 [=====] - 15s 125ms/step - loss: 55.1086 - reconstruction_error: 34.6221 - regularization_error: 20.4865 - val_loss: 73.5613 - val_reconstruction_error: 54.6566 - val_regularization_error: 18.9047
Epoch 107/1000
120/120 [=====] - 18s 145ms/step - loss: 55.1555 - reconstruction_error: 34.4629 - regularization_error: 20.6927 - val_loss: 73.4011 - val_reconstruction_error: 54.2461 - val_regularization_error: 19.1549
Epoch 108/1000
120/120 [=====] - 17s 141ms/step - loss: 54.9730 - reconstruction_error: 34.3601 - regularization_error: 20.6128 - val_loss: 72.9312 - val_reconstruction_error: 53.6160 - val_regularization_error: 19.3152
Epoch 109/1000
120/120 [=====] - 18s 144ms/step - loss: 54.6408 - reconstruction_error: 33.9685 - regularization_error: 20.6723 - val_loss: 73.5389 - val_reconstruction_error: 54.2819 - val_regularization_error: 19.2571
Epoch 110/1000
120/120 [=====] - 20s 166ms/step - loss: 54.6991 - reconstruction_error: 33.9735 - regularization_error: 20.7256 - val_loss: 73.7862 - val_reconstruction_error: 53.6582 - val_regularization_error: 20.1280
Epoch 111/1000
120/120 [=====] - ETA: 0s - loss: 54.8615 - reconstruction_error: 34.1018 - regularization_error: 20.7598
[2023-12-01 10:17:23.511609]: Reconstructing images for epoch 111 ...
```



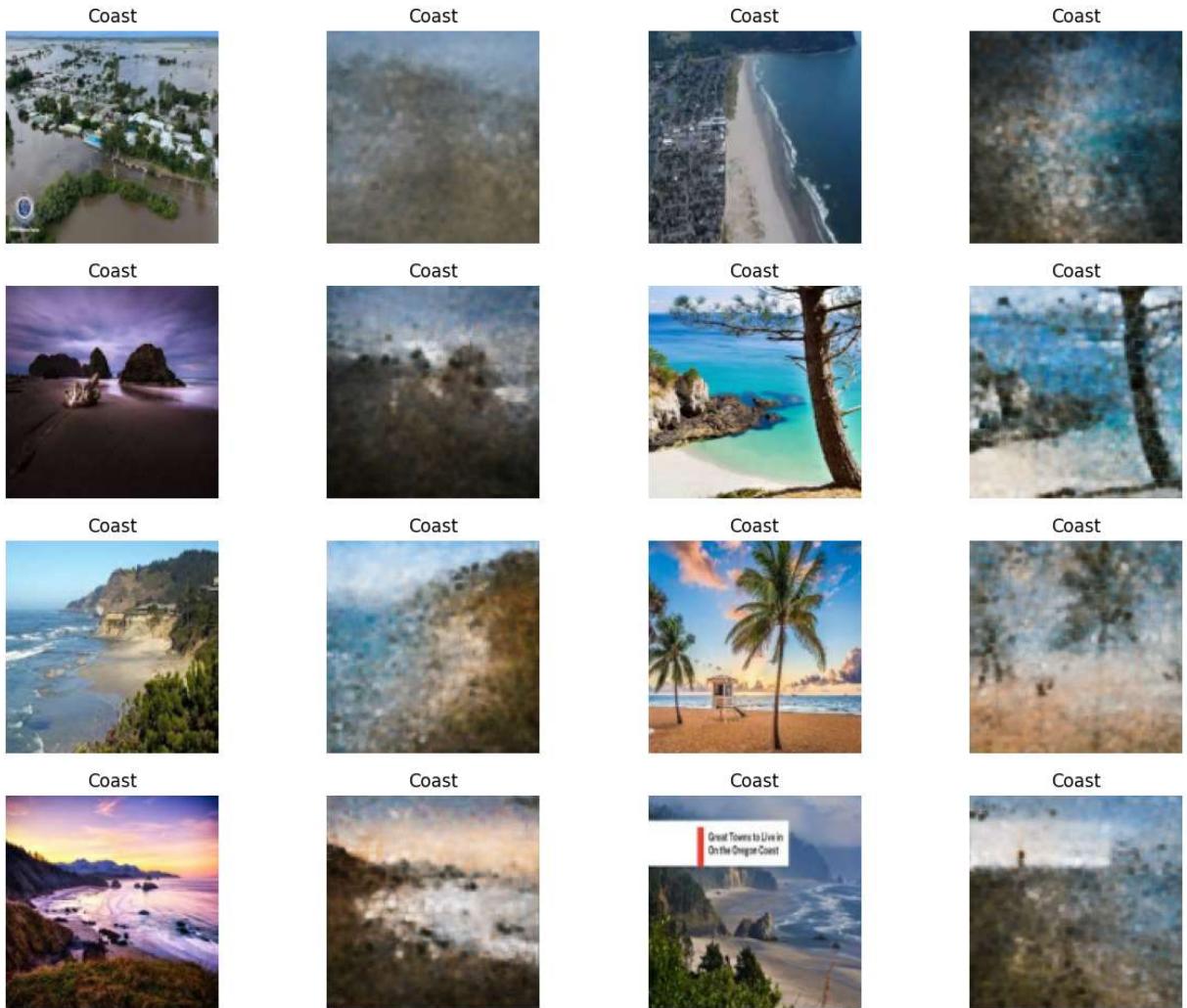
```
120/120 [=====] - 20s 164ms/step - loss: 54.8615 - reconstruction_error: 34.1018 - regularization_error: 20.7598 - val_loss: 74.2365 - val_reconstruction_error: 54.2904 - val_regularization_error: 19.9461
Epoch 112/1000
120/120 [=====] - 16s 137ms/step - loss: 54.5539 - reconstruction_error: 33.8315 - regularization_error: 20.7224 - val_loss: 73.8910 - val_reconstruction_error: 54.7004 - val_regularization_error: 19.1906
Epoch 113/1000
120/120 [=====] - 20s 163ms/step - loss: 54.5581 - reconstruction_error: 33.7871 - regularization_error: 20.7710 - val_loss: 73.8564 - val_reconstruction_error: 53.6542 - val_regularization_error: 20.2022
Epoch 114/1000
120/120 [=====] - 18s 151ms/step - loss: 54.6003 - reconstruction_error: 33.8204 - regularization_error: 20.7799 - val_loss: 74.6299 - val_reconstruction_error: 53.9757 - val_regularization_error: 20.6542
Epoch 115/1000
120/120 [=====] - 18s 145ms/step - loss: 54.2869 - reconstruction_error: 33.4614 - regularization_error: 20.8255 - val_loss: 73.4556 - val_reconstruction_error: 54.5064 - val_regularization_error: 18.9492
Epoch 116/1000
120/120 [=====] - 19s 157ms/step - loss: 54.4807 - reconstruction_error: 33.6495 - regularization_error: 20.8312 - val_loss: 75.3067 - val_reconstruction_error: 55.0939 - val_regularization_error: 20.2129
Epoch 117/1000
120/120 [=====] - 19s 157ms/step - loss: 54.1716 - reconstruction_error: 33.2180 - regularization_error: 20.9536 - val_loss: 74.2695 - val_reconstruction_error: 53.6346 - val_regularization_error: 20.6349
Epoch 118/1000
120/120 [=====] - 18s 152ms/step - loss: 53.5839 - reconstruction_error: 32.7647 - regularization_error: 20.8192 - val_loss: 75.9031 - val_reconstruction_error: 55.1609 - val_regularization_error: 20.7423
Epoch 119/1000
120/120 [=====] - 16s 133ms/step - loss: 53.7530 - reconstruction_error: 33.0660 - regularization_error: 20.6870 - val_loss: 75.4851 - val_reconstruction_error: 54.5780 - val_regularization_error: 20.9071
Epoch 120/1000
120/120 [=====] - 18s 147ms/step - loss: 53.5745 - reconstruction_error: 32.6325 - regularization_error: 20.9420 - val_loss: 73.4285 - val_reconstruction_error: 54.8313 - val_regularization_error: 18.5971
Epoch 121/1000
120/120 [=====] - ETA: 0s - loss: 53.6029 - reconstruction_error: 32.6340 - regularization_error: 20.9690
[2023-12-01 10:20:28.807592]: Reconstructing images for epoch 121 ...
```



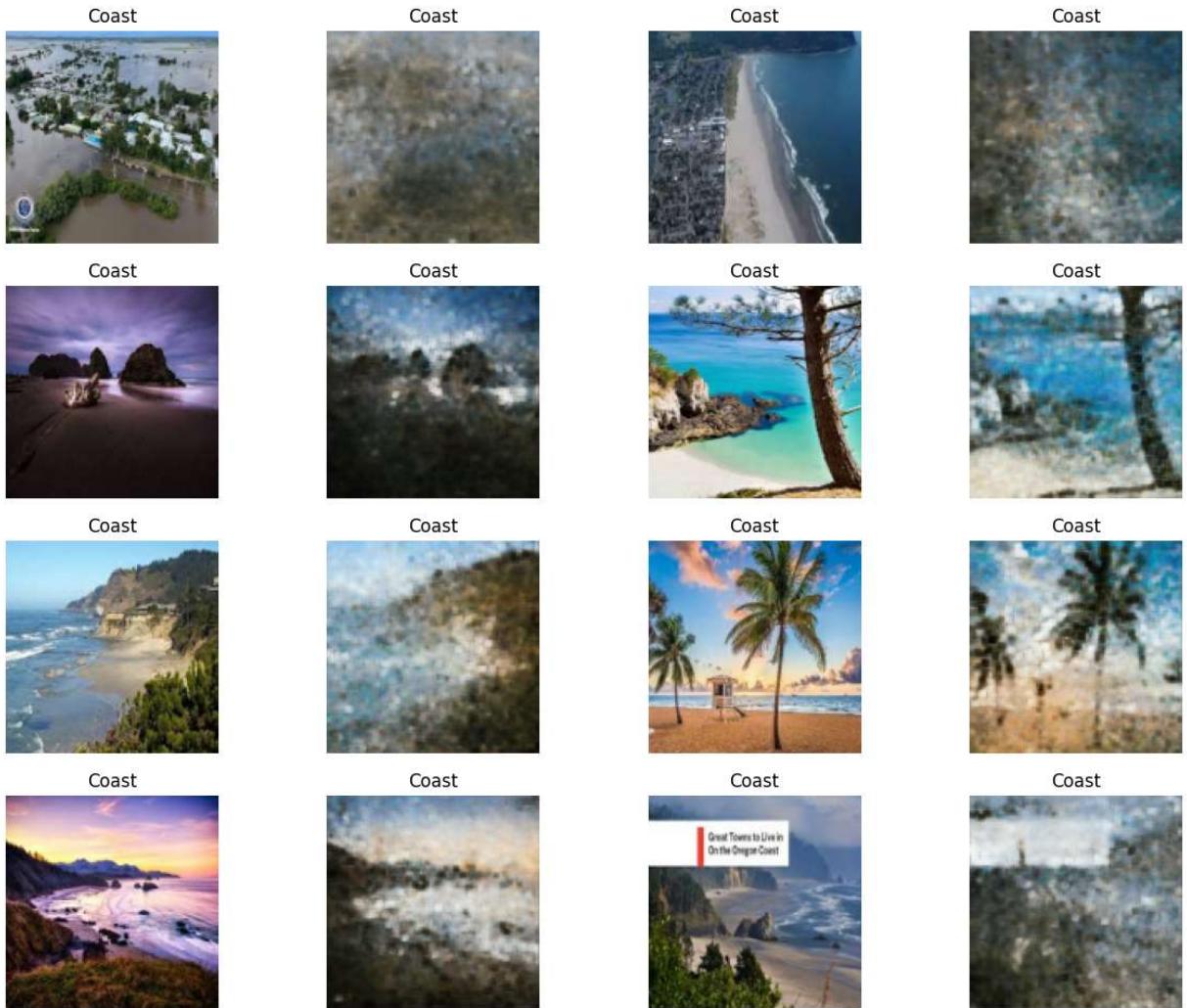
```
120/120 [=====] - 20s 166ms/step - loss: 53.6029 - reconstruction_error: 32.6340 - regularization_error: 20.9690 - val_loss: 74.4910 - val_reconstruction_error: 55.4316 - val_regularization_error: 19.0594
Epoch 122/1000
120/120 [=====] - 18s 148ms/step - loss: 53.4812 - reconstruction_error: 32.5619 - regularization_error: 20.9193 - val_loss: 74.8134 - val_reconstruction_error: 55.9444 - val_regularization_error: 18.8691
Epoch 123/1000
120/120 [=====] - 16s 129ms/step - loss: 53.3183 - reconstruction_error: 32.3947 - regularization_error: 20.9236 - val_loss: 74.4018 - val_reconstruction_error: 54.0404 - val_regularization_error: 20.3615
Epoch 124/1000
120/120 [=====] - 18s 145ms/step - loss: 53.3928 - reconstruction_error: 32.3438 - regularization_error: 21.0490 - val_loss: 75.2559 - val_reconstruction_error: 55.0977 - val_regularization_error: 20.1582
Epoch 125/1000
120/120 [=====] - 16s 133ms/step - loss: 53.5143 - reconstruction_error: 32.5208 - regularization_error: 20.9935 - val_loss: 75.6078 - val_reconstruction_error: 54.9683 - val_regularization_error: 20.6395
Epoch 126/1000
120/120 [=====] - 21s 171ms/step - loss: 53.1918 - reconstruction_error: 32.1826 - regularization_error: 21.0093 - val_loss: 75.8676 - val_reconstruction_error: 55.0561 - val_regularization_error: 20.8116
Epoch 127/1000
120/120 [=====] - 20s 163ms/step - loss: 53.1659 - reconstruction_error: 32.0715 - regularization_error: 21.0944 - val_loss: 75.4608 - val_reconstruction_error: 54.5849 - val_regularization_error: 20.8759
Epoch 128/1000
120/120 [=====] - 17s 143ms/step - loss: 53.0342 - reconstruction_error: 31.9984 - regularization_error: 21.0358 - val_loss: 74.8138 - val_reconstruction_error: 54.3766 - val_regularization_error: 20.4372
Epoch 129/1000
120/120 [=====] - 19s 156ms/step - loss: 53.1806 - reconstruction_error: 31.9859 - regularization_error: 21.1948 - val_loss: 75.4354 - val_reconstruction_error: 54.1224 - val_regularization_error: 21.3130
Epoch 130/1000
120/120 [=====] - 18s 151ms/step - loss: 52.7182 - reconstruction_error: 31.7555 - regularization_error: 20.9627 - val_loss: 75.3881 - val_reconstruction_error: 56.6888 - val_regularization_error: 18.6993
Epoch 131/1000
120/120 [=====] - ETA: 0s - loss: 52.9905 - reconstruction_error: 31.7164 - regularization_error: 21.2741
[2023-12-01 10:23:30.435064]: Reconstructing images for epoch 131 ...
```



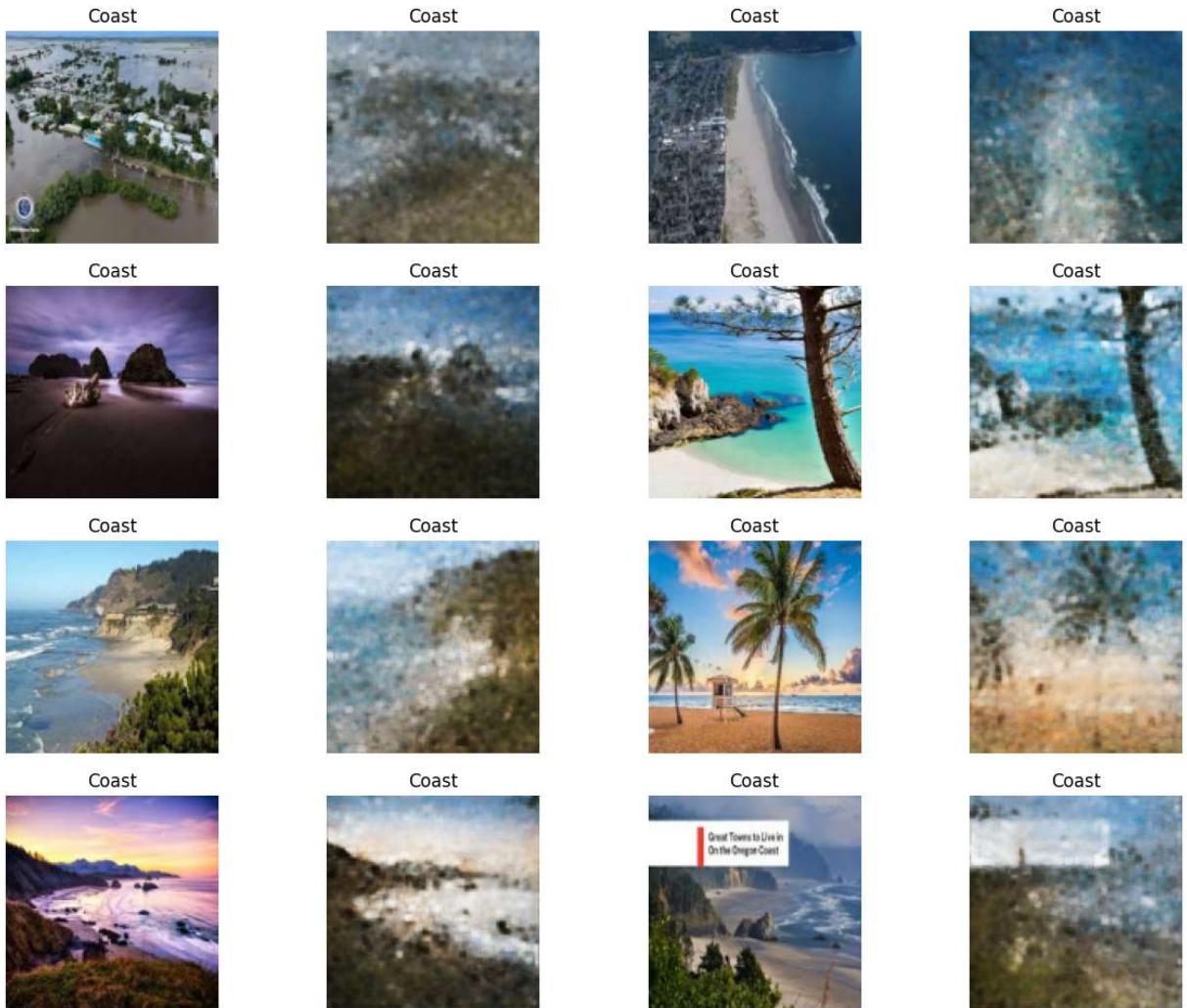
```
120/120 [=====] - 19s 156ms/step - loss: 52.9905 - reconstruction_error: 31.7164 - regularization_error: 21.2741 - val_loss: 74.3541 - val_reconstruction_error: 54.4677 - val_regularization_error: 19.8865
Epoch 132/1000
120/120 [=====] - 17s 144ms/step - loss: 52.9978 - reconstruction_error: 31.9050 - regularization_error: 21.0928 - val_loss: 75.0793 - val_reconstruction_error: 54.8390 - val_regularization_error: 20.2402
Epoch 133/1000
120/120 [=====] - 17s 139ms/step - loss: 52.3457 - reconstruction_error: 31.2000 - regularization_error: 21.1458 - val_loss: 74.7203 - val_reconstruction_error: 55.3921 - val_regularization_error: 19.3282
Epoch 134/1000
120/120 [=====] - 15s 122ms/step - loss: 52.5440 - reconstruction_error: 31.3911 - regularization_error: 21.1529 - val_loss: 73.8273 - val_reconstruction_error: 55.2827 - val_regularization_error: 18.5446
Epoch 135/1000
120/120 [=====] - 16s 130ms/step - loss: 52.3399 - reconstruction_error: 31.2443 - regularization_error: 21.0957 - val_loss: 74.8838 - val_reconstruction_error: 55.4502 - val_regularization_error: 19.4335
Epoch 136/1000
120/120 [=====] - 20s 165ms/step - loss: 52.2557 - reconstruction_error: 31.0539 - regularization_error: 21.2019 - val_loss: 76.3286 - val_reconstruction_error: 55.4145 - val_regularization_error: 20.9141
Epoch 137/1000
120/120 [=====] - 14s 115ms/step - loss: 52.6524 - reconstruction_error: 31.3715 - regularization_error: 21.2810 - val_loss: 75.8069 - val_reconstruction_error: 55.2804 - val_regularization_error: 20.5265
Epoch 138/1000
120/120 [=====] - 19s 160ms/step - loss: 52.1950 - reconstruction_error: 30.9948 - regularization_error: 21.2002 - val_loss: 74.8876 - val_reconstruction_error: 55.5229 - val_regularization_error: 19.3647
Epoch 139/1000
120/120 [=====] - 19s 152ms/step - loss: 52.3854 - reconstruction_error: 31.1856 - regularization_error: 21.1997 - val_loss: 76.1635 - val_reconstruction_error: 54.6450 - val_regularization_error: 21.5185
Epoch 140/1000
120/120 [=====] - 20s 165ms/step - loss: 52.0780 - reconstruction_error: 30.7801 - regularization_error: 21.2979 - val_loss: 74.8029 - val_reconstruction_error: 56.0849 - val_regularization_error: 18.7180
Epoch 141/1000
120/120 [=====] - ETA: 0s - loss: 52.0210 - reconstruction_error: 30.8215 - regularization_error: 21.1995
[2023-12-01 10:26:30.327135]: Reconstructing images for epoch 141 ...
```



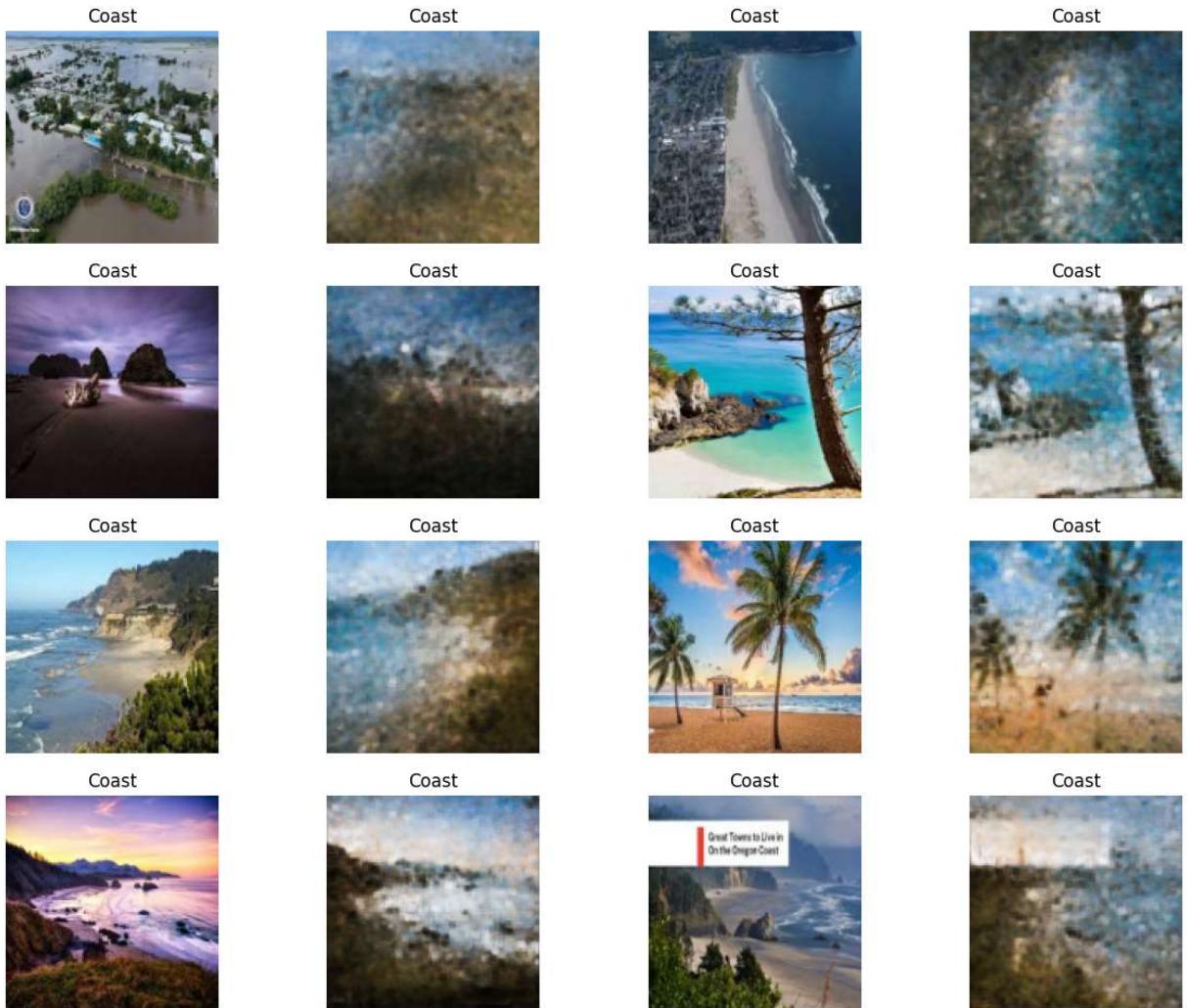
```
120/120 [=====] - 22s 180ms/step - loss: 52.0210 - reconstruction_error: 30.8215 - regularization_error: 21.1995 - val_loss: 75.3109 - val_reconstruction_error: 55.0117 - val_regularization_error: 20.2993
Epoch 142/1000
120/120 [=====] - 15s 122ms/step - loss: 52.0626 - reconstruction_error: 30.7677 - regularization_error: 21.2949 - val_loss: 76.5063 - val_reconstruction_error: 54.9672 - val_regularization_error: 21.5391
Epoch 143/1000
120/120 [=====] - 17s 138ms/step - loss: 51.7328 - reconstruction_error: 30.5288 - regularization_error: 21.2040 - val_loss: 76.3860 - val_reconstruction_error: 54.8755 - val_regularization_error: 21.5105
Epoch 144/1000
120/120 [=====] - 17s 142ms/step - loss: 51.6221 - reconstruction_error: 30.2762 - regularization_error: 21.3459 - val_loss: 76.2300 - val_reconstruction_error: 55.1871 - val_regularization_error: 21.0429
Epoch 145/1000
120/120 [=====] - 20s 165ms/step - loss: 51.5768 - reconstruction_error: 30.3159 - regularization_error: 21.2610 - val_loss: 77.8158 - val_reconstruction_error: 56.3265 - val_regularization_error: 21.4893
Epoch 146/1000
120/120 [=====] - 19s 154ms/step - loss: 51.6581 - reconstruction_error: 30.2907 - regularization_error: 21.3673 - val_loss: 77.0712 - val_reconstruction_error: 55.8238 - val_regularization_error: 21.2474
Epoch 147/1000
120/120 [=====] - 17s 138ms/step - loss: 51.8558 - reconstruction_error: 30.5199 - regularization_error: 21.3359 - val_loss: 77.3977 - val_reconstruction_error: 54.9354 - val_regularization_error: 22.4623
Epoch 148/1000
120/120 [=====] - 16s 131ms/step - loss: 51.7949 - reconstruction_error: 30.2560 - regularization_error: 21.5389 - val_loss: 75.2649 - val_reconstruction_error: 55.2714 - val_regularization_error: 19.9935
Epoch 149/1000
120/120 [=====] - 19s 161ms/step - loss: 51.3066 - reconstruction_error: 30.1460 - regularization_error: 21.1606 - val_loss: 76.3629 - val_reconstruction_error: 56.0746 - val_regularization_error: 20.2883
Epoch 150/1000
120/120 [=====] - 16s 129ms/step - loss: 51.5760 - reconstruction_error: 30.2402 - regularization_error: 21.3358 - val_loss: 74.7779 - val_reconstruction_error: 55.4206 - val_regularization_error: 19.3573
Epoch 151/1000
120/120 [=====] - ETA: 0s - loss: 51.2848 - reconstruction_error: 29.9543 - regularization_error: 21.3305
[2023-12-01 10:29:26.464549]: Reconstructing images for epoch 151 ...
```



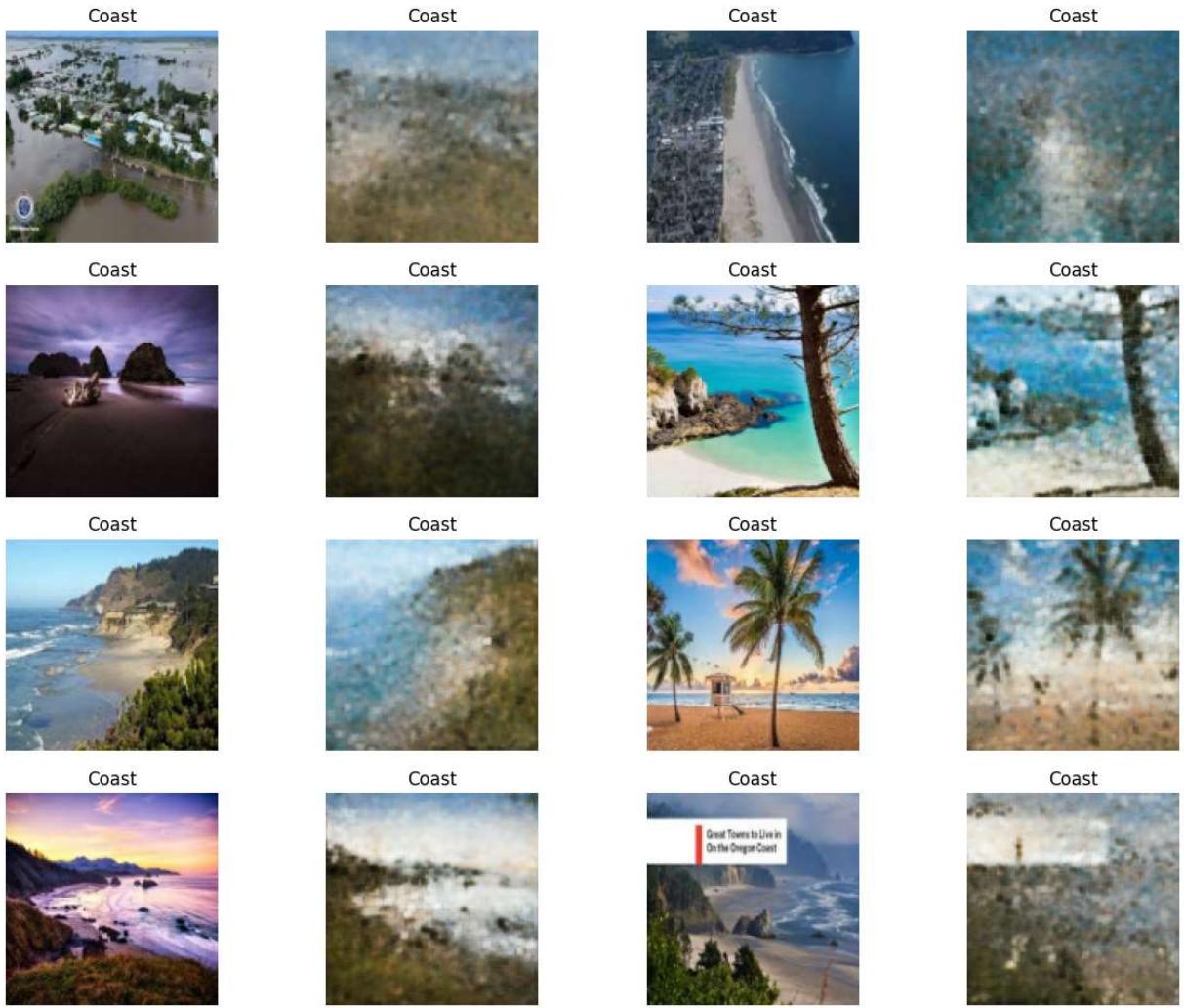
```
120/120 [=====] - 20s 166ms/step - loss: 51.2848 - reconstruction_error: 29.9543 - regularization_error: 21.3305 - val_loss: 77.0158 - val_reconstruction_error: 56.8224 - val_regularization_error: 20.1934
Epoch 152/1000
120/120 [=====] - 17s 144ms/step - loss: 51.5027 - reconstruction_error: 29.9167 - regularization_error: 21.5860 - val_loss: 75.7469 - val_reconstruction_error: 55.8262 - val_regularization_error: 19.9207
Epoch 153/1000
120/120 [=====] - 18s 152ms/step - loss: 51.3110 - reconstruction_error: 29.8352 - regularization_error: 21.4758 - val_loss: 76.6062 - val_reconstruction_error: 56.0855 - val_regularization_error: 20.5207
Epoch 154/1000
120/120 [=====] - 17s 144ms/step - loss: 51.2431 - reconstruction_error: 29.7847 - regularization_error: 21.4584 - val_loss: 76.3823 - val_reconstruction_error: 54.6656 - val_regularization_error: 21.7168
Epoch 155/1000
120/120 [=====] - 17s 140ms/step - loss: 51.0383 - reconstruction_error: 29.6412 - regularization_error: 21.3971 - val_loss: 76.4175 - val_reconstruction_error: 55.0545 - val_regularization_error: 21.3629
Epoch 156/1000
120/120 [=====] - 17s 142ms/step - loss: 51.1300 - reconstruction_error: 29.7322 - regularization_error: 21.3978 - val_loss: 77.0474 - val_reconstruction_error: 55.1828 - val_regularization_error: 21.8646
Epoch 157/1000
120/120 [=====] - 17s 137ms/step - loss: 50.6832 - reconstruction_error: 29.1713 - regularization_error: 21.5118 - val_loss: 76.5608 - val_reconstruction_error: 56.5586 - val_regularization_error: 20.0022
Epoch 158/1000
120/120 [=====] - 16s 128ms/step - loss: 50.8051 - reconstruction_error: 29.3386 - regularization_error: 21.4666 - val_loss: 76.4802 - val_reconstruction_error: 54.8425 - val_regularization_error: 21.6376
Epoch 159/1000
120/120 [=====] - 15s 123ms/step - loss: 50.4759 - reconstruction_error: 29.0321 - regularization_error: 21.4438 - val_loss: 75.9380 - val_reconstruction_error: 55.4112 - val_regularization_error: 20.5268
Epoch 160/1000
120/120 [=====] - 17s 142ms/step - loss: 50.8861 - reconstruction_error: 29.4062 - regularization_error: 21.4799 - val_loss: 75.5549 - val_reconstruction_error: 56.2558 - val_regularization_error: 19.2991
Epoch 161/1000
120/120 [=====] - ETA: 0s - loss: 50.5171 - reconstruction_error: 29.1544 - regularization_error: 21.3627
[2023-12-01 10:32:22.355259]: Reconstructing images for epoch 161 ...
```



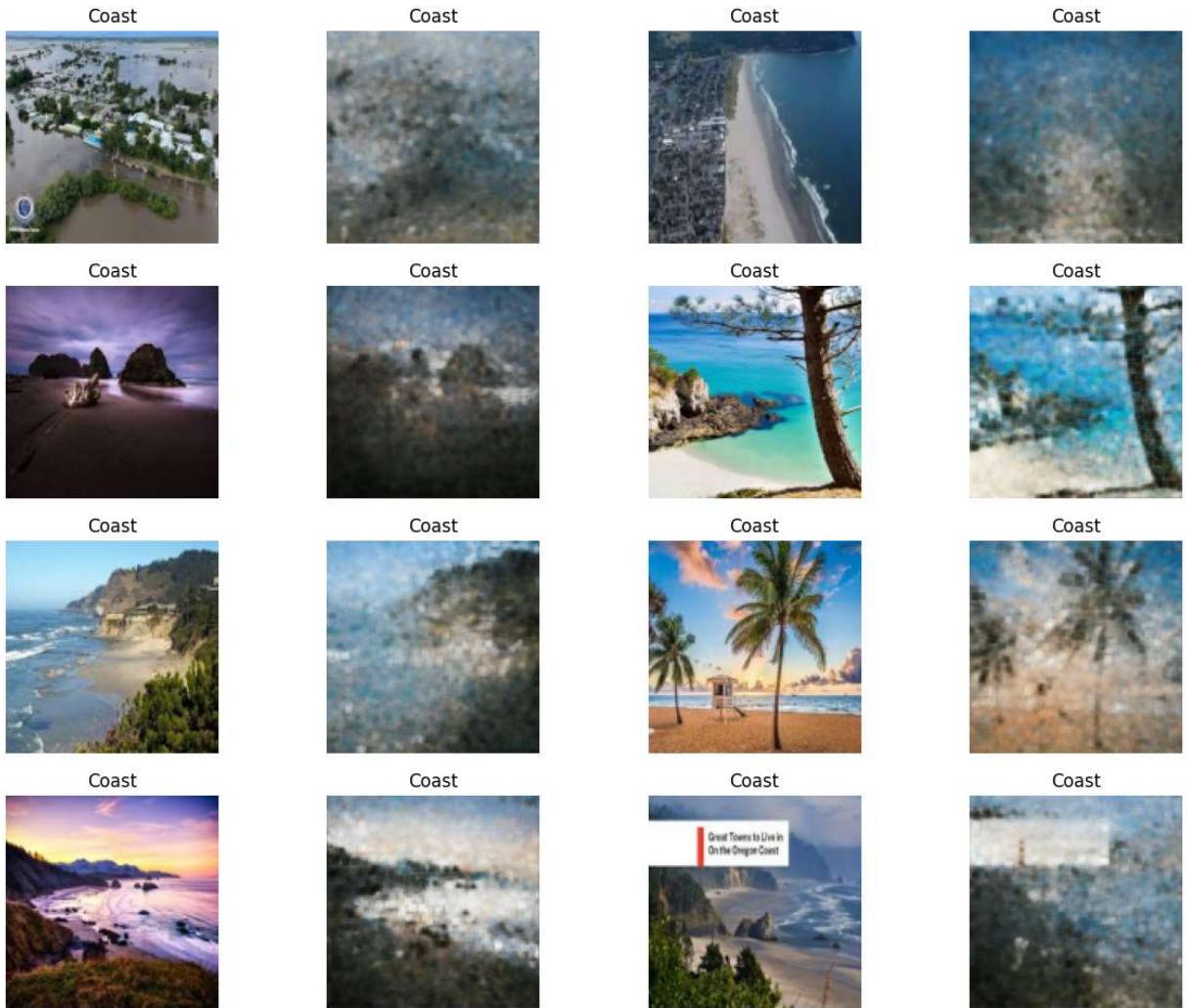
```
120/120 [=====] - 20s 169ms/step - loss: 50.5171 - reconstruction_error: 29.1544 - regularization_error: 21.3627 - val_loss: 76.9915 - val_reconstruction_error: 55.9151 - val_regularization_error: 21.0764
Epoch 162/1000
120/120 [=====] - 19s 158ms/step - loss: 50.5679 - reconstruction_error: 29.0758 - regularization_error: 21.4921 - val_loss: 76.2262 - val_reconstruction_error: 55.9841 - val_regularization_error: 20.2421
Epoch 163/1000
120/120 [=====] - 17s 138ms/step - loss: 50.7383 - reconstruction_error: 29.1244 - regularization_error: 21.6139 - val_loss: 76.9603 - val_reconstruction_error: 55.8587 - val_regularization_error: 21.1016
Epoch 164/1000
120/120 [=====] - 20s 162ms/step - loss: 50.7239 - reconstruction_error: 29.1913 - regularization_error: 21.5326 - val_loss: 75.9843 - val_reconstruction_error: 56.0975 - val_regularization_error: 19.8867
Epoch 165/1000
120/120 [=====] - 18s 149ms/step - loss: 50.3935 - reconstruction_error: 28.8532 - regularization_error: 21.5403 - val_loss: 76.8490 - val_reconstruction_error: 55.6352 - val_regularization_error: 21.2138
Epoch 166/1000
120/120 [=====] - 16s 134ms/step - loss: 50.4464 - reconstruction_error: 28.8933 - regularization_error: 21.5531 - val_loss: 75.8777 - val_reconstruction_error: 54.8005 - val_regularization_error: 21.0772
Epoch 167/1000
120/120 [=====] - 18s 146ms/step - loss: 50.4710 - reconstruction_error: 28.8011 - regularization_error: 21.6699 - val_loss: 75.8617 - val_reconstruction_error: 56.4405 - val_regularization_error: 19.4212
Epoch 168/1000
120/120 [=====] - 19s 162ms/step - loss: 50.3060 - reconstruction_error: 28.7997 - regularization_error: 21.5063 - val_loss: 76.3853 - val_reconstruction_error: 55.1936 - val_regularization_error: 21.1917
Epoch 169/1000
120/120 [=====] - 17s 142ms/step - loss: 50.2900 - reconstruction_error: 28.7341 - regularization_error: 21.5559 - val_loss: 76.7044 - val_reconstruction_error: 55.4821 - val_regularization_error: 21.2223
Epoch 170/1000
120/120 [=====] - 19s 155ms/step - loss: 50.0190 - reconstruction_error: 28.4424 - regularization_error: 21.5766 - val_loss: 76.7138 - val_reconstruction_error: 55.6821 - val_regularization_error: 21.0316
Epoch 171/1000
120/120 [=====] - ETA: 0s - loss: 50.0383 - reconstruction_error: 28.6228 - regularization_error: 21.4155
[2023-12-01 10:35:24.504176]: Reconstructing images for epoch 171 ...
```



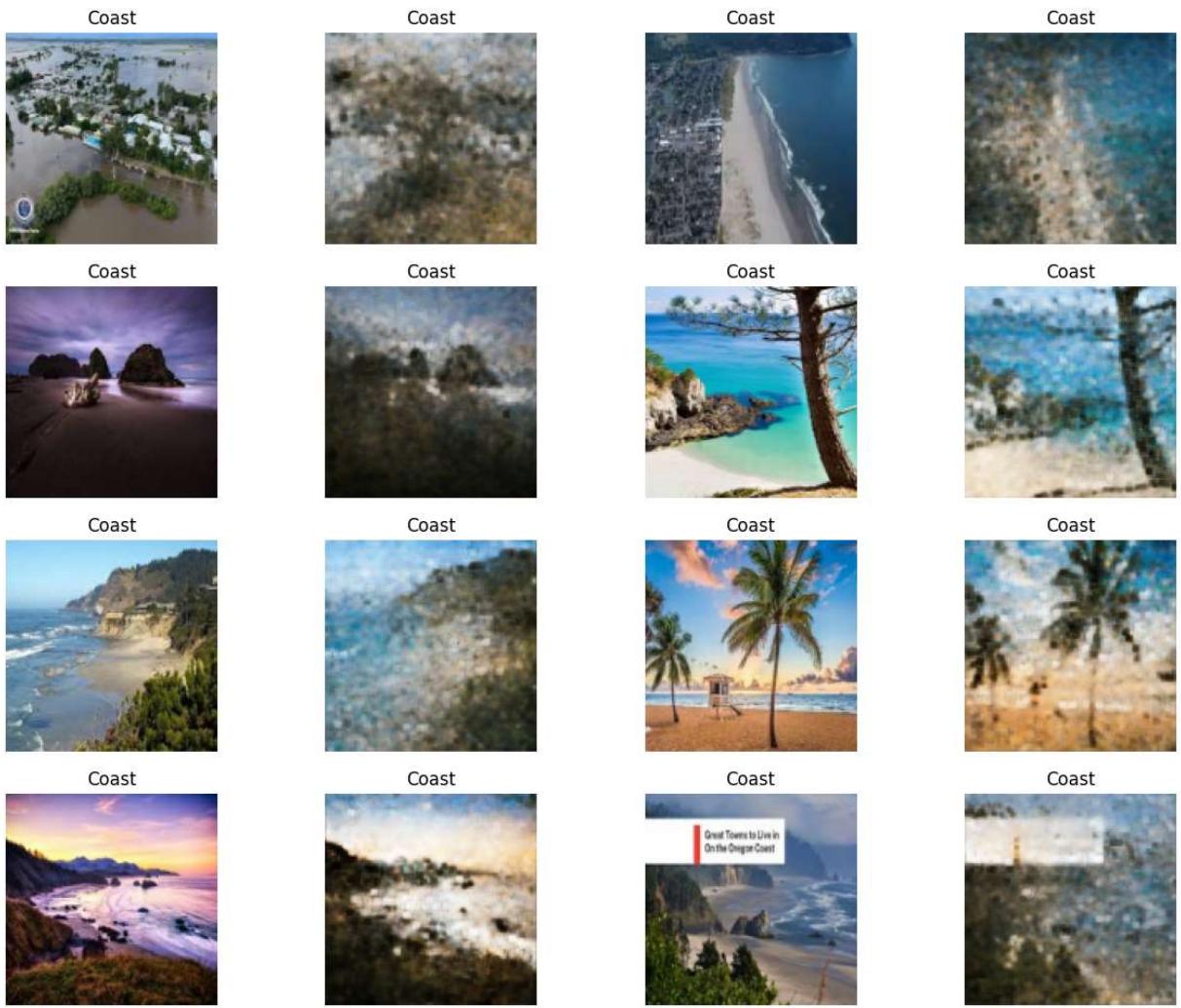
```
120/120 [=====] - 17s 137ms/step - loss: 50.0383 - reconstruction_error: 28.6228 - regularization_error: 21.4155 - val_loss: 76.7462 - val_reconstruction_error: 56.4315 - val_regularization_error: 20.3147
Epoch 172/1000
120/120 [=====] - 16s 136ms/step - loss: 49.9730 - reconstruction_error: 28.4749 - regularization_error: 21.4981 - val_loss: 75.6013 - val_reconstruction_error: 55.4406 - val_regularization_error: 20.1607
Epoch 173/1000
120/120 [=====] - 19s 159ms/step - loss: 49.9331 - reconstruction_error: 28.3948 - regularization_error: 21.5383 - val_loss: 76.4613 - val_reconstruction_error: 55.7076 - val_regularization_error: 20.7537
Epoch 174/1000
120/120 [=====] - 17s 141ms/step - loss: 50.1405 - reconstruction_error: 28.4849 - regularization_error: 21.6555 - val_loss: 77.0170 - val_reconstruction_error: 56.0568 - val_regularization_error: 20.9602
Epoch 175/1000
120/120 [=====] - 18s 148ms/step - loss: 49.8574 - reconstruction_error: 28.2755 - regularization_error: 21.5819 - val_loss: 75.9823 - val_reconstruction_error: 55.4720 - val_regularization_error: 20.5103
Epoch 176/1000
120/120 [=====] - 17s 137ms/step - loss: 50.1218 - reconstruction_error: 28.5156 - regularization_error: 21.6062 - val_loss: 75.0229 - val_reconstruction_error: 55.7461 - val_regularization_error: 19.2768
Epoch 177/1000
120/120 [=====] - 14s 112ms/step - loss: 49.8198 - reconstruction_error: 28.2376 - regularization_error: 21.5822 - val_loss: 75.7841 - val_reconstruction_error: 55.1127 - val_regularization_error: 20.6714
Epoch 178/1000
120/120 [=====] - 17s 141ms/step - loss: 49.8346 - reconstruction_error: 28.0728 - regularization_error: 21.7618 - val_loss: 76.3798 - val_reconstruction_error: 56.4950 - val_regularization_error: 19.8849
Epoch 179/1000
120/120 [=====] - 19s 157ms/step - loss: 49.4763 - reconstruction_error: 27.9450 - regularization_error: 21.5313 - val_loss: 76.8436 - val_reconstruction_error: 55.5675 - val_regularization_error: 21.2761
Epoch 180/1000
120/120 [=====] - 16s 135ms/step - loss: 49.6462 - reconstruction_error: 28.0760 - regularization_error: 21.5702 - val_loss: 75.0952 - val_reconstruction_error: 55.3003 - val_regularization_error: 19.7949
Epoch 181/1000
120/120 [=====] - ETA: 0s - loss: 49.5925 - reconstruction_error: 27.8457 - regularization_error: 21.7468
[2023-12-01 10:38:20.482924]: Reconstructing images for epoch 181 ...
```



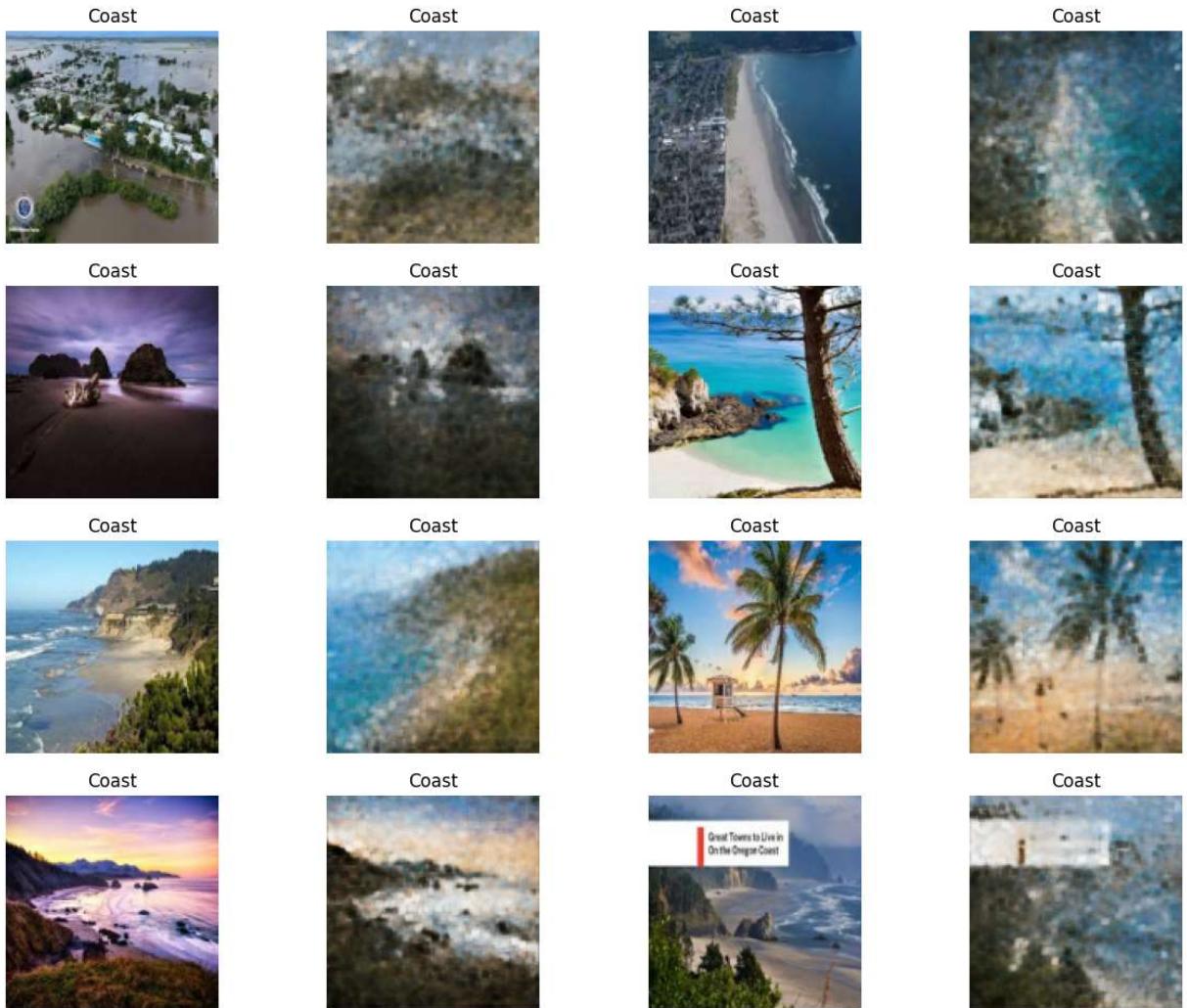
```
120/120 [=====] - 21s 178ms/step - loss: 49.5925 - reconstruction_error: 27.8457 - regularization_error: 21.7468 - val_loss: 78.7048 - val_reconstruction_error: 58.4356 - val_regularization_error: 20.2691
Epoch 182/1000
120/120 [=====] - 18s 154ms/step - loss: 49.6609 - reconstruction_error: 27.9271 - regularization_error: 21.7338 - val_loss: 76.7187 - val_reconstruction_error: 55.9325 - val_regularization_error: 20.7862
Epoch 183/1000
120/120 [=====] - 17s 138ms/step - loss: 49.2762 - reconstruction_error: 27.7099 - regularization_error: 21.5663 - val_loss: 76.4215 - val_reconstruction_error: 55.1793 - val_regularization_error: 21.2422
Epoch 184/1000
120/120 [=====] - 14s 116ms/step - loss: 49.7404 - reconstruction_error: 28.0117 - regularization_error: 21.7287 - val_loss: 76.6338 - val_reconstruction_error: 56.4029 - val_regularization_error: 20.2309
Epoch 185/1000
120/120 [=====] - 18s 150ms/step - loss: 49.3186 - reconstruction_error: 27.6225 - regularization_error: 21.6961 - val_loss: 77.0800 - val_reconstruction_error: 57.4727 - val_regularization_error: 19.6074
Epoch 186/1000
120/120 [=====] - 14s 118ms/step - loss: 49.1933 - reconstruction_error: 27.5640 - regularization_error: 21.6294 - val_loss: 76.6429 - val_reconstruction_error: 56.2893 - val_regularization_error: 20.3536
Epoch 187/1000
120/120 [=====] - 16s 134ms/step - loss: 49.1444 - reconstruction_error: 27.5408 - regularization_error: 21.6037 - val_loss: 77.0037 - val_reconstruction_error: 55.5863 - val_regularization_error: 21.4175
Epoch 188/1000
120/120 [=====] - 17s 139ms/step - loss: 49.3351 - reconstruction_error: 27.5957 - regularization_error: 21.7394 - val_loss: 76.9420 - val_reconstruction_error: 55.3762 - val_regularization_error: 21.5658
Epoch 189/1000
120/120 [=====] - 17s 139ms/step - loss: 48.9346 - reconstruction_error: 27.3311 - regularization_error: 21.6035 - val_loss: 77.2908 - val_reconstruction_error: 56.0135 - val_regularization_error: 21.2773
Epoch 190/1000
120/120 [=====] - 15s 126ms/step - loss: 48.9728 - reconstruction_error: 27.4080 - regularization_error: 21.5649 - val_loss: 77.2732 - val_reconstruction_error: 56.4188 - val_regularization_error: 20.8544
Epoch 191/1000
120/120 [=====] - ETA: 0s - loss: 49.2264 - reconstruction_error: 27.3140 - regularization_error: 21.9125
[2023-12-01 10:41:07.712363]: Reconstructing images for epoch 191 ...
```



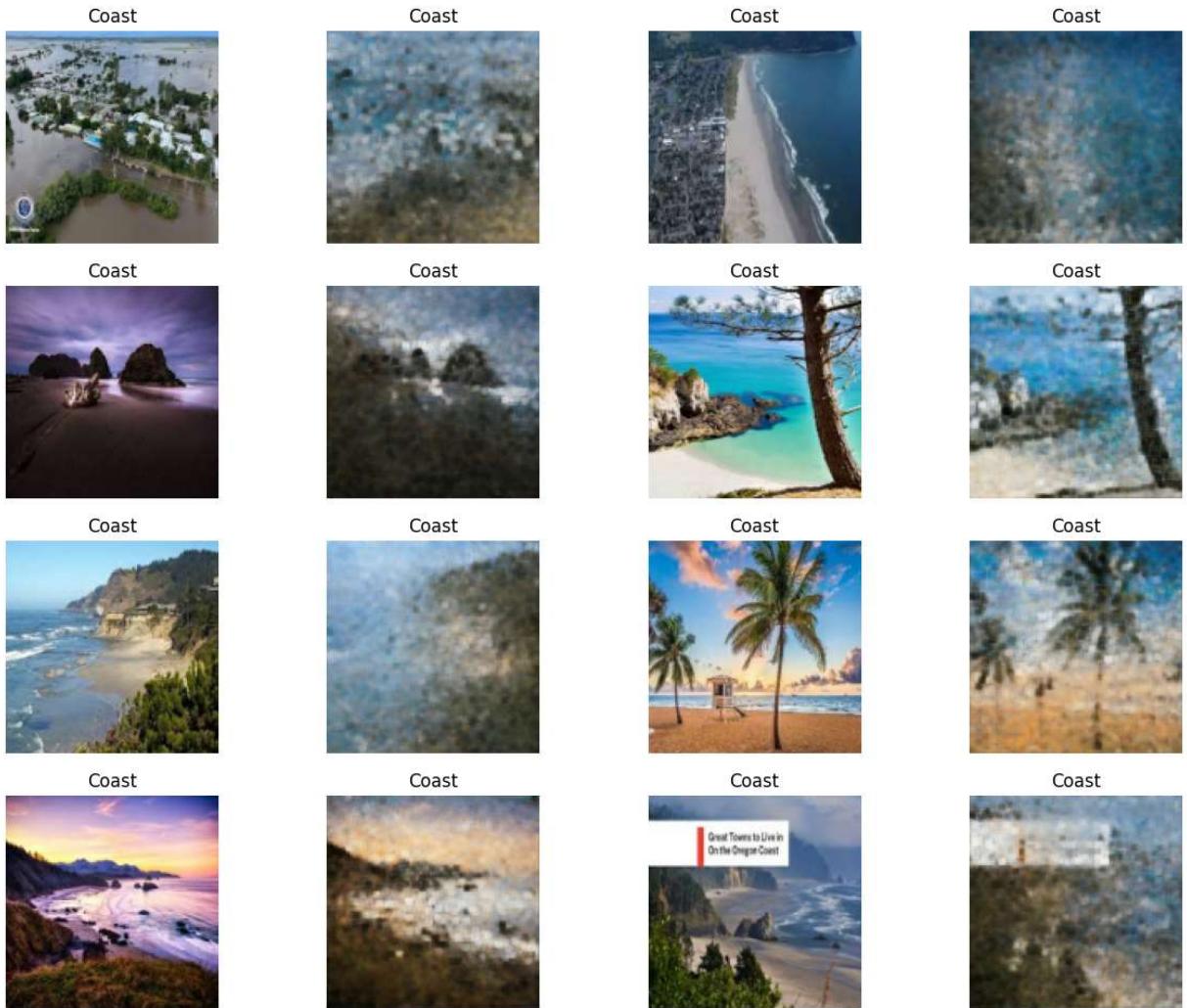
```
120/120 [=====] - 19s 157ms/step - loss: 49.2264 - reconstruction_error: 27.3140 - regularization_error: 21.9125 - val_loss: 76.0482 - val_reconstruction_error: 55.9944 - val_regularization_error: 20.0538
Epoch 192/1000
120/120 [=====] - 15s 120ms/step - loss: 48.9620 - reconstruction_error: 27.3491 - regularization_error: 21.6129 - val_loss: 76.8179 - val_reconstruction_error: 55.6609 - val_regularization_error: 21.1570
Epoch 193/1000
120/120 [=====] - 18s 151ms/step - loss: 49.0713 - reconstruction_error: 27.2787 - regularization_error: 21.7926 - val_loss: 77.2603 - val_reconstruction_error: 56.2464 - val_regularization_error: 21.0140
Epoch 194/1000
120/120 [=====] - 17s 142ms/step - loss: 48.9091 - reconstruction_error: 27.2185 - regularization_error: 21.6906 - val_loss: 77.5791 - val_reconstruction_error: 57.6033 - val_regularization_error: 19.9758
Epoch 195/1000
120/120 [=====] - 17s 138ms/step - loss: 48.8020 - reconstruction_error: 27.1640 - regularization_error: 21.6380 - val_loss: 77.2726 - val_reconstruction_error: 55.9736 - val_regularization_error: 21.2990
Epoch 196/1000
120/120 [=====] - 17s 143ms/step - loss: 48.6457 - reconstruction_error: 26.9149 - regularization_error: 21.7308 - val_loss: 76.7294 - val_reconstruction_error: 57.2628 - val_regularization_error: 19.4666
Epoch 197/1000
120/120 [=====] - 16s 134ms/step - loss: 49.2244 - reconstruction_error: 27.6409 - regularization_error: 21.5835 - val_loss: 77.6586 - val_reconstruction_error: 56.7124 - val_regularization_error: 20.9462
Epoch 198/1000
120/120 [=====] - 16s 132ms/step - loss: 48.8431 - reconstruction_error: 27.0878 - regularization_error: 21.7553 - val_loss: 76.0249 - val_reconstruction_error: 55.5637 - val_regularization_error: 20.4612
Epoch 199/1000
120/120 [=====] - 17s 138ms/step - loss: 48.4975 - reconstruction_error: 26.8053 - regularization_error: 21.6922 - val_loss: 77.2674 - val_reconstruction_error: 55.9484 - val_regularization_error: 21.3190
Epoch 200/1000
120/120 [=====] - 18s 153ms/step - loss: 48.6438 - reconstruction_error: 26.9404 - regularization_error: 21.7033 - val_loss: 78.4488 - val_reconstruction_error: 55.7364 - val_regularization_error: 22.7125
Epoch 201/1000
120/120 [=====] - ETA: 0s - loss: 48.6797 - reconstruction_error: 26.8593 - regularization_error: 21.8204
[2023-12-01 10:44:02.427314]: Reconstructing images for epoch 201 ...
```



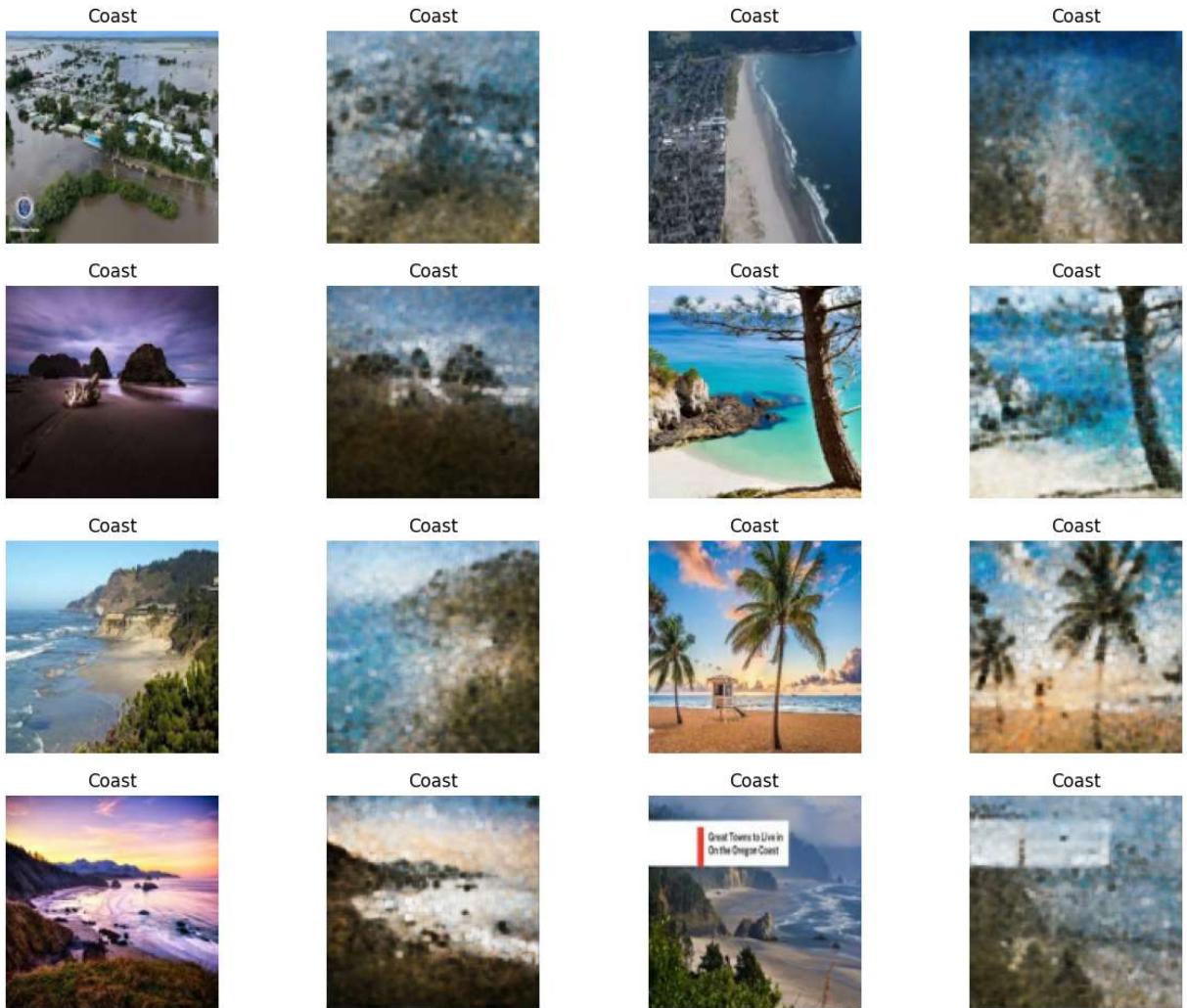
```
120/120 [=====] - 21s 171ms/step - loss: 48.6797 - reconstruction_error: 26.8593 - regularization_error: 21.8204 - val_loss: 78.9552 - val_reconstruction_error: 57.1255 - val_regularization_error: 21.8297
Epoch 202/1000
120/120 [=====] - 17s 138ms/step - loss: 48.6804 - reconstruction_error: 26.9243 - regularization_error: 21.7561 - val_loss: 76.8012 - val_reconstruction_error: 55.5241 - val_regularization_error: 21.2771
Epoch 203/1000
120/120 [=====] - 16s 135ms/step - loss: 48.9023 - reconstruction_error: 27.1013 - regularization_error: 21.8010 - val_loss: 78.3185 - val_reconstruction_error: 56.6912 - val_regularization_error: 21.6273
Epoch 204/1000
120/120 [=====] - 16s 136ms/step - loss: 48.1558 - reconstruction_error: 26.5367 - regularization_error: 21.6190 - val_loss: 77.3001 - val_reconstruction_error: 56.8488 - val_regularization_error: 20.4513
Epoch 205/1000
120/120 [=====] - 17s 143ms/step - loss: 48.3463 - reconstruction_error: 26.6619 - regularization_error: 21.6844 - val_loss: 76.7869 - val_reconstruction_error: 56.2812 - val_regularization_error: 20.5057
Epoch 206/1000
120/120 [=====] - 14s 116ms/step - loss: 48.2138 - reconstruction_error: 26.5541 - regularization_error: 21.6597 - val_loss: 77.8944 - val_reconstruction_error: 56.6273 - val_regularization_error: 21.2670
Epoch 207/1000
120/120 [=====] - 16s 133ms/step - loss: 48.2264 - reconstruction_error: 26.5395 - regularization_error: 21.6869 - val_loss: 78.3600 - val_reconstruction_error: 57.0822 - val_regularization_error: 21.2778
Epoch 208/1000
120/120 [=====] - 15s 124ms/step - loss: 48.4074 - reconstruction_error: 26.5756 - regularization_error: 21.8318 - val_loss: 77.0968 - val_reconstruction_error: 57.1589 - val_regularization_error: 19.9379
Epoch 209/1000
120/120 [=====] - 15s 123ms/step - loss: 48.2323 - reconstruction_error: 26.4824 - regularization_error: 21.7499 - val_loss: 76.6893 - val_reconstruction_error: 56.5937 - val_regularization_error: 20.0956
Epoch 210/1000
120/120 [=====] - 17s 135ms/step - loss: 48.0553 - reconstruction_error: 26.4104 - regularization_error: 21.6449 - val_loss: 76.8438 - val_reconstruction_error: 56.1519 - val_regularization_error: 20.6919
Epoch 211/1000
120/120 [=====] - ETA: 0s - loss: 48.3466 - reconstruction_error: 26.5233 - regularization_error: 21.8233
[2023-12-01 10:46:49.400383]: Reconstructing images for epoch 211 ...
```



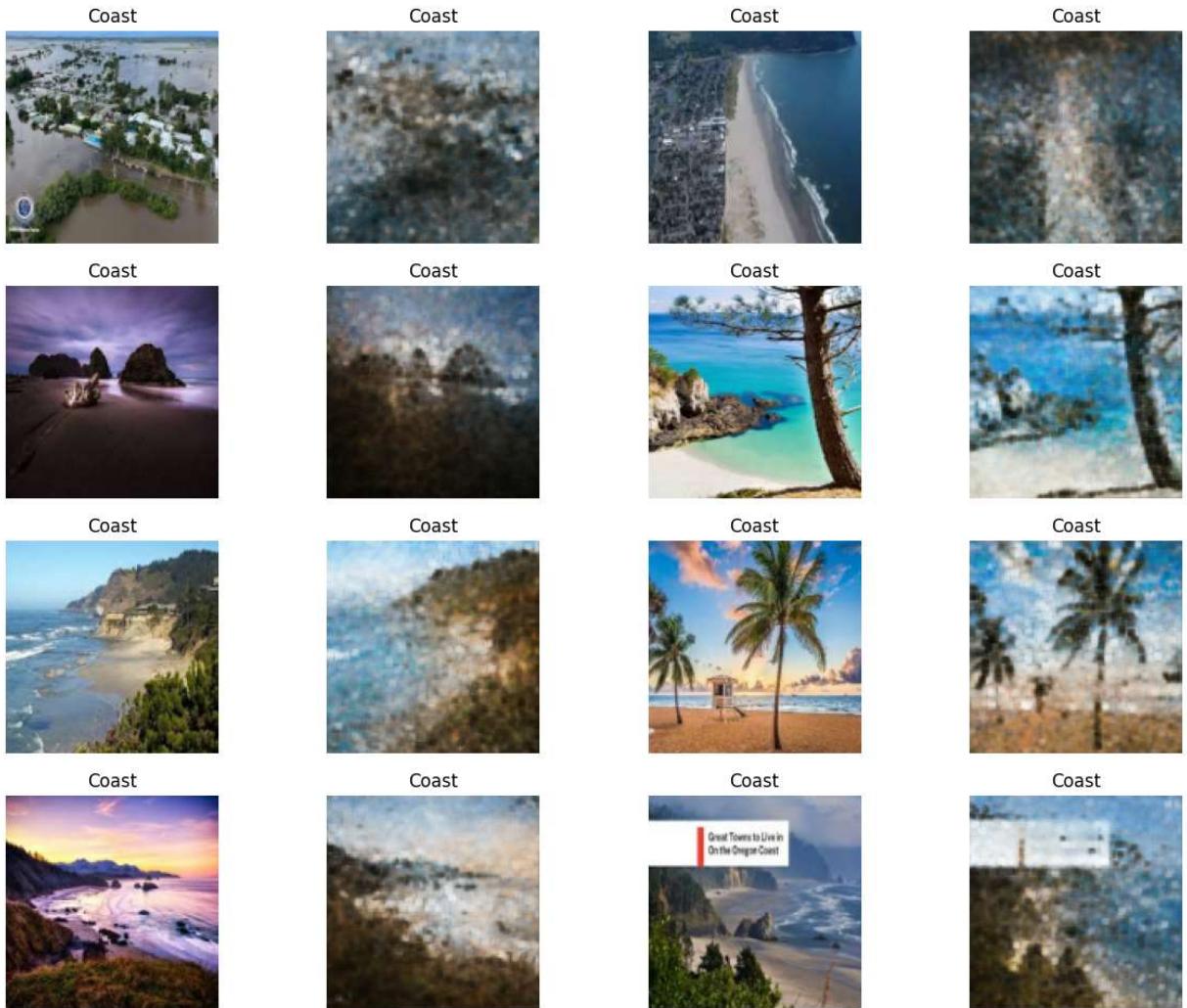
```
120/120 [=====] - 21s 170ms/step - loss: 48.3466 - reconstruction_error: 26.5233 - regularization_error: 21.8233 - val_loss: 76.8568 - val_reconstruction_error: 56.3999 - val_regularization_error: 20.4569
Epoch 212/1000
120/120 [=====] - 16s 130ms/step - loss: 48.2818 - reconstruction_error: 26.3983 - regularization_error: 21.8835 - val_loss: 79.6613 - val_reconstruction_error: 56.7321 - val_regularization_error: 22.9292
Epoch 213/1000
120/120 [=====] - 19s 154ms/step - loss: 48.1621 - reconstruction_error: 26.4163 - regularization_error: 21.7458 - val_loss: 77.7570 - val_reconstruction_error: 57.8428 - val_regularization_error: 19.9142
Epoch 214/1000
120/120 [=====] - 17s 137ms/step - loss: 48.1965 - reconstruction_error: 26.3797 - regularization_error: 21.8169 - val_loss: 77.7842 - val_reconstruction_error: 57.1117 - val_regularization_error: 20.6724
Epoch 215/1000
120/120 [=====] - 18s 144ms/step - loss: 47.8977 - reconstruction_error: 26.1790 - regularization_error: 21.7187 - val_loss: 77.9201 - val_reconstruction_error: 56.9786 - val_regularization_error: 20.9415
Epoch 216/1000
120/120 [=====] - 15s 129ms/step - loss: 48.0724 - reconstruction_error: 26.2957 - regularization_error: 21.7766 - val_loss: 78.6655 - val_reconstruction_error: 57.3305 - val_regularization_error: 21.3350
Epoch 217/1000
120/120 [=====] - 18s 147ms/step - loss: 48.0421 - reconstruction_error: 26.2013 - regularization_error: 21.8408 - val_loss: 76.5608 - val_reconstruction_error: 56.1012 - val_regularization_error: 20.4596
Epoch 218/1000
120/120 [=====] - 16s 136ms/step - loss: 48.0579 - reconstruction_error: 26.2563 - regularization_error: 21.8016 - val_loss: 80.0960 - val_reconstruction_error: 57.2377 - val_regularization_error: 22.8583
Epoch 219/1000
120/120 [=====] - 15s 122ms/step - loss: 47.6702 - reconstruction_error: 25.9064 - regularization_error: 21.7638 - val_loss: 76.9333 - val_reconstruction_error: 57.1974 - val_regularization_error: 19.7360
Epoch 220/1000
120/120 [=====] - 17s 137ms/step - loss: 48.2258 - reconstruction_error: 26.4390 - regularization_error: 21.7868 - val_loss: 77.4318 - val_reconstruction_error: 56.1112 - val_regularization_error: 21.3206
Epoch 221/1000
120/120 [=====] - ETA: 0s - loss: 47.7632 - reconstruction_error: 25.9207 - regularization_error: 21.8425
[2023-12-01 10:49:41.025935]: Reconstructing images for epoch 221 ...
```



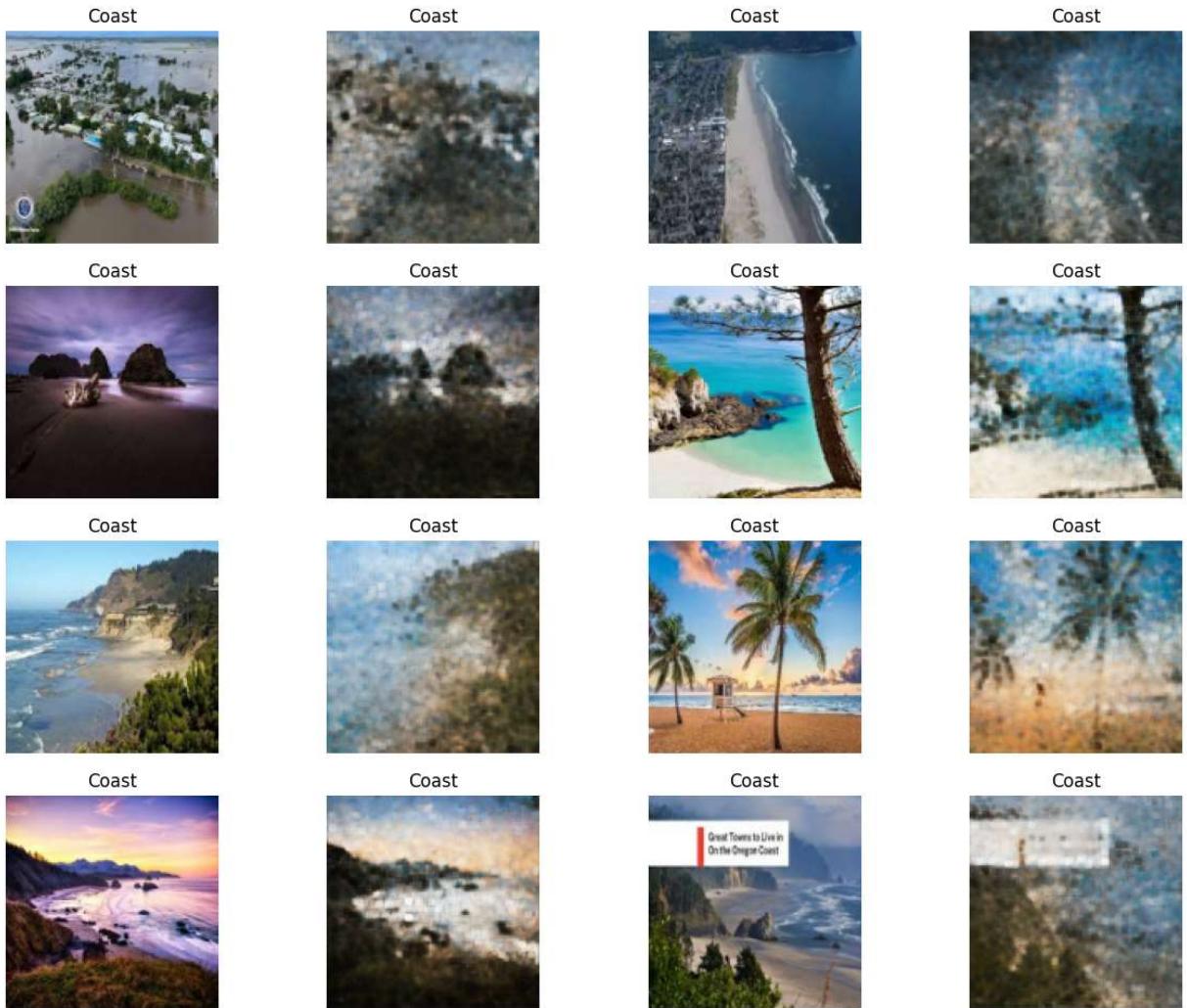
```
120/120 [=====] - 20s 165ms/step - loss: 47.7632 - reconstruction_error: 25.9207 - regularization_error: 21.8425 - val_loss: 78.0102 - val_reconstruction_error: 58.6292 - val_regularization_error: 19.3811
Epoch 222/1000
120/120 [=====] - 19s 162ms/step - loss: 47.8375 - reconstruction_error: 25.9644 - regularization_error: 21.8731 - val_loss: 77.3568 - val_reconstruction_error: 56.4923 - val_regularization_error: 20.8645
Epoch 223/1000
120/120 [=====] - 16s 133ms/step - loss: 47.5483 - reconstruction_error: 25.9527 - regularization_error: 21.5956 - val_loss: 76.6270 - val_reconstruction_error: 56.9185 - val_regularization_error: 19.7085
Epoch 224/1000
120/120 [=====] - 15s 121ms/step - loss: 47.9580 - reconstruction_error: 26.0865 - regularization_error: 21.8715 - val_loss: 78.2952 - val_reconstruction_error: 56.6267 - val_regularization_error: 21.6685
Epoch 225/1000
120/120 [=====] - 18s 151ms/step - loss: 47.4332 - reconstruction_error: 25.6591 - regularization_error: 21.7741 - val_loss: 77.4947 - val_reconstruction_error: 56.3732 - val_regularization_error: 21.1215
Epoch 226/1000
120/120 [=====] - 17s 139ms/step - loss: 47.6260 - reconstruction_error: 25.8951 - regularization_error: 21.7309 - val_loss: 77.6210 - val_reconstruction_error: 56.3152 - val_regularization_error: 21.3058
Epoch 227/1000
120/120 [=====] - 18s 146ms/step - loss: 47.4675 - reconstruction_error: 25.5976 - regularization_error: 21.8699 - val_loss: 78.2025 - val_reconstruction_error: 57.5611 - val_regularization_error: 20.6414
Epoch 228/1000
120/120 [=====] - 15s 126ms/step - loss: 47.5716 - reconstruction_error: 25.7297 - regularization_error: 21.8419 - val_loss: 77.9937 - val_reconstruction_error: 57.4817 - val_regularization_error: 20.5119
Epoch 229/1000
120/120 [=====] - 18s 146ms/step - loss: 47.5195 - reconstruction_error: 25.7074 - regularization_error: 21.8121 - val_loss: 78.0960 - val_reconstruction_error: 57.4072 - val_regularization_error: 20.6889
Epoch 230/1000
120/120 [=====] - 18s 145ms/step - loss: 47.5102 - reconstruction_error: 25.7374 - regularization_error: 21.7728 - val_loss: 76.7224 - val_reconstruction_error: 56.6425 - val_regularization_error: 20.0799
Epoch 231/1000
120/120 [=====] - ETA: 0s - loss: 47.2193 - reconstruction_error: 25.4579 - regularization_error: 21.7615
[2023-12-01 10:52:36.161513]: Reconstructing images for epoch 231 ...
```



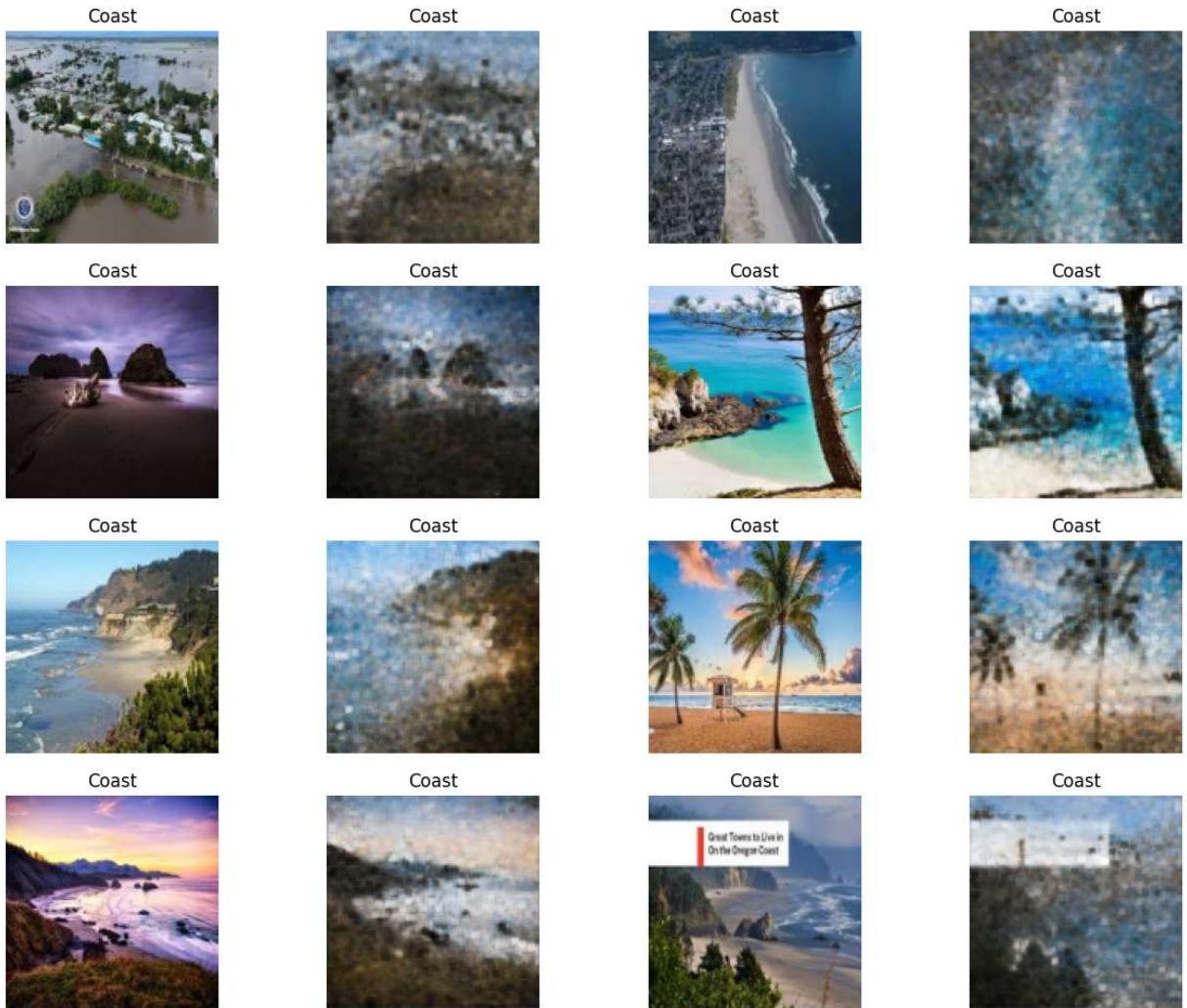
```
120/120 [=====] - 20s 164ms/step - loss: 47.2193 - reconstruction_error: 25.4579 - regularization_error: 21.7615 - val_loss: 77.4984 - val_reconstruction_error: 57.3591 - val_regularization_error: 20.1393
Epoch 232/1000
120/120 [=====] - 17s 145ms/step - loss: 47.3737 - reconstruction_error: 25.5903 - regularization_error: 21.7833 - val_loss: 77.3240 - val_reconstruction_error: 56.9330 - val_regularization_error: 20.3911
Epoch 233/1000
120/120 [=====] - 15s 121ms/step - loss: 47.2986 - reconstruction_error: 25.4183 - regularization_error: 21.8803 - val_loss: 76.6825 - val_reconstruction_error: 57.1224 - val_regularization_error: 19.5601
Epoch 234/1000
120/120 [=====] - 17s 139ms/step - loss: 47.1423 - reconstruction_error: 25.3520 - regularization_error: 21.7903 - val_loss: 77.5406 - val_reconstruction_error: 56.8354 - val_regularization_error: 20.7052
Epoch 235/1000
120/120 [=====] - 18s 143ms/step - loss: 47.4362 - reconstruction_error: 25.4551 - regularization_error: 21.9811 - val_loss: 77.6976 - val_reconstruction_error: 56.8850 - val_regularization_error: 20.8126
Epoch 236/1000
120/120 [=====] - 17s 137ms/step - loss: 47.2454 - reconstruction_error: 25.3820 - regularization_error: 21.8634 - val_loss: 77.3554 - val_reconstruction_error: 57.1030 - val_regularization_error: 20.2524
Epoch 237/1000
120/120 [=====] - 15s 122ms/step - loss: 47.2627 - reconstruction_error: 25.4135 - regularization_error: 21.8492 - val_loss: 77.2469 - val_reconstruction_error: 56.4866 - val_regularization_error: 20.7603
Epoch 238/1000
120/120 [=====] - 19s 155ms/step - loss: 47.1635 - reconstruction_error: 25.1918 - regularization_error: 21.9716 - val_loss: 78.8968 - val_reconstruction_error: 57.6826 - val_regularization_error: 21.2142
Epoch 239/1000
120/120 [=====] - 17s 140ms/step - loss: 47.2881 - reconstruction_error: 25.4382 - regularization_error: 21.8499 - val_loss: 77.3091 - val_reconstruction_error: 58.0827 - val_regularization_error: 19.2263
Epoch 240/1000
120/120 [=====] - 17s 140ms/step - loss: 47.1429 - reconstruction_error: 25.2797 - regularization_error: 21.8632 - val_loss: 77.3301 - val_reconstruction_error: 57.4664 - val_regularization_error: 19.8636
Epoch 241/1000
120/120 [=====] - ETA: 0s - loss: 46.9405 - reconstruction_error: 25.1789 - regularization_error: 21.7616
[2023-12-01 10:55:29.015319]: Reconstructing images for epoch 241 ...
```



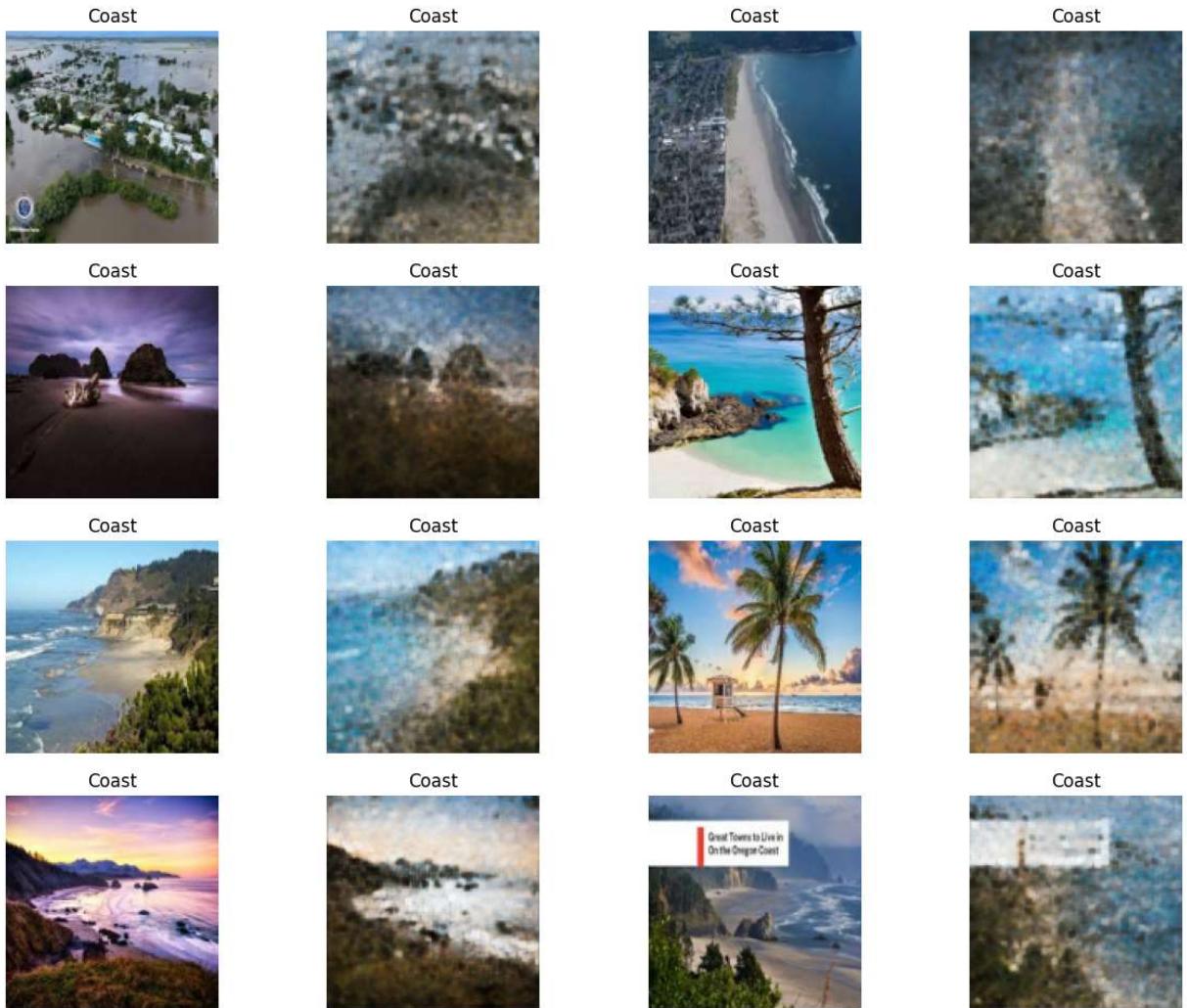
```
120/120 [=====] - 20s 165ms/step - loss: 46.9405 - reconstruction_error: 25.1789 - regularization_error: 21.7616 - val_loss: 77.4138 - val_reconstruction_error: 56.7988 - val_regularization_error: 20.6150
Epoch 242/1000
120/120 [=====] - 19s 155ms/step - loss: 47.1202 - reconstruction_error: 25.2998 - regularization_error: 21.8204 - val_loss: 81.3910 - val_reconstruction_error: 58.2558 - val_regularization_error: 23.1351
Epoch 243/1000
120/120 [=====] - 18s 149ms/step - loss: 47.2402 - reconstruction_error: 25.3228 - regularization_error: 21.9174 - val_loss: 78.2434 - val_reconstruction_error: 57.2669 - val_regularization_error: 20.9766
Epoch 244/1000
120/120 [=====] - 18s 149ms/step - loss: 47.2317 - reconstruction_error: 25.3061 - regularization_error: 21.9256 - val_loss: 78.7958 - val_reconstruction_error: 57.1179 - val_regularization_error: 21.6779
Epoch 245/1000
120/120 [=====] - 17s 138ms/step - loss: 47.2347 - reconstruction_error: 25.3327 - regularization_error: 21.9020 - val_loss: 77.9507 - val_reconstruction_error: 56.4252 - val_regularization_error: 21.5255
Epoch 246/1000
120/120 [=====] - 15s 124ms/step - loss: 47.0512 - reconstruction_error: 25.2146 - regularization_error: 21.8366 - val_loss: 78.1822 - val_reconstruction_error: 57.9053 - val_regularization_error: 20.2768
Epoch 247/1000
120/120 [=====] - 16s 129ms/step - loss: 46.9157 - reconstruction_error: 25.2007 - regularization_error: 21.7150 - val_loss: 77.9650 - val_reconstruction_error: 57.4183 - val_regularization_error: 20.5467
Epoch 248/1000
120/120 [=====] - 17s 137ms/step - loss: 46.6520 - reconstruction_error: 24.8135 - regularization_error: 21.8384 - val_loss: 77.9415 - val_reconstruction_error: 57.1680 - val_regularization_error: 20.7735
Epoch 249/1000
120/120 [=====] - 16s 129ms/step - loss: 46.6485 - reconstruction_error: 24.8988 - regularization_error: 21.7497 - val_loss: 77.2798 - val_reconstruction_error: 58.0963 - val_regularization_error: 19.1835
Epoch 250/1000
120/120 [=====] - 18s 152ms/step - loss: 46.6706 - reconstruction_error: 24.9263 - regularization_error: 21.7443 - val_loss: 77.8579 - val_reconstruction_error: 57.1613 - val_regularization_error: 20.6966
Epoch 251/1000
120/120 [=====] - ETA: 0s - loss: 46.6091 - reconstruction_error: 24.8094 - regularization_error: 21.7997
[2023-12-01 10:58:24.095016]: Reconstructing images for epoch 251 ...
```



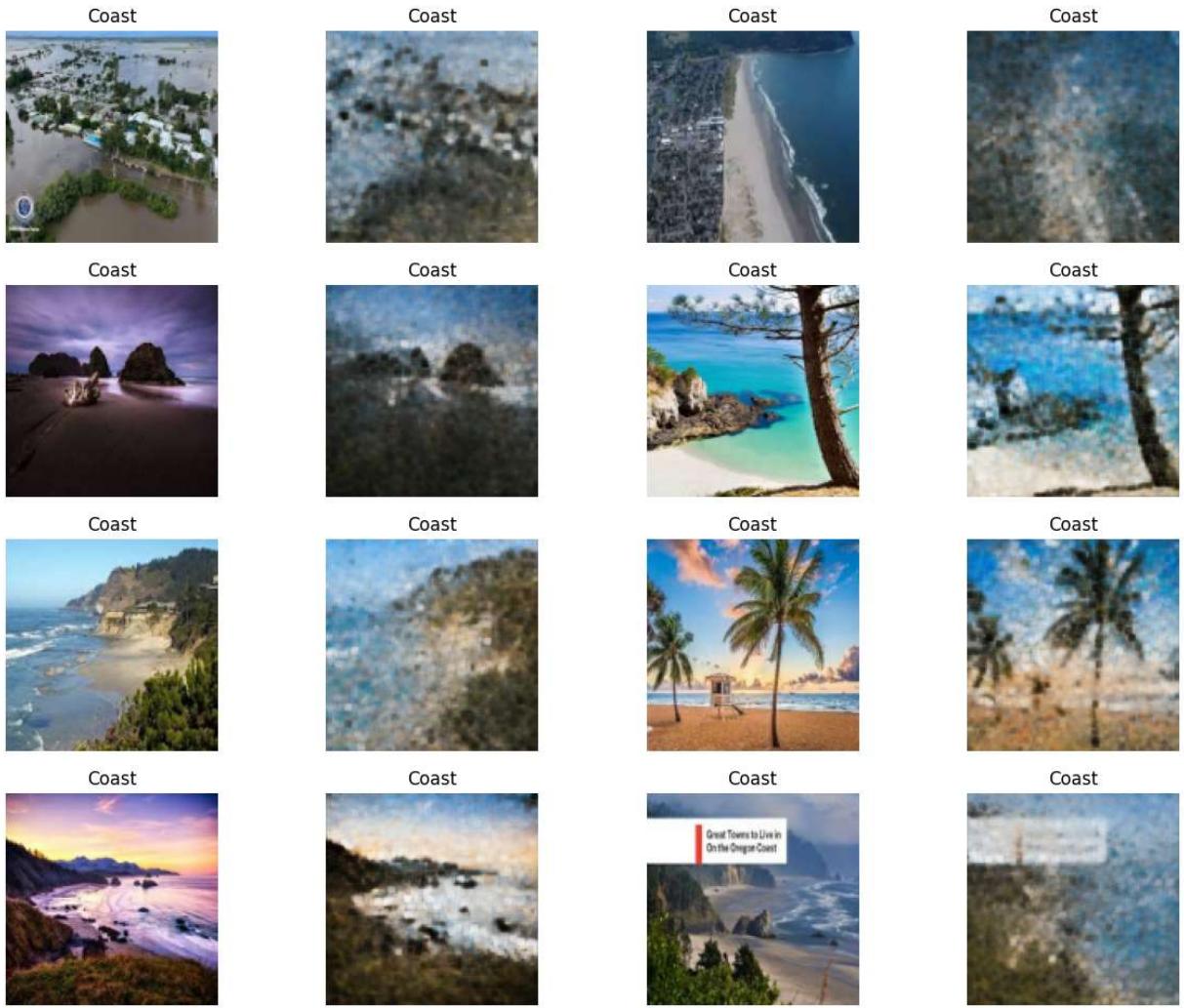
```
120/120 [=====] - 22s 182ms/step - loss: 46.6091 - reconstruction_error: 24.8094 - regularization_error: 21.7997 - val_loss: 78.7558 - val_reconstruction_error: 57.1221 - val_regularization_error: 21.6338
Epoch 252/1000
120/120 [=====] - 18s 145ms/step - loss: 46.7276 - reconstruction_error: 24.8793 - regularization_error: 21.8483 - val_loss: 77.9654 - val_reconstruction_error: 58.2989 - val_regularization_error: 19.6665
Epoch 253/1000
120/120 [=====] - 19s 161ms/step - loss: 46.7255 - reconstruction_error: 24.9559 - regularization_error: 21.7696 - val_loss: 78.4727 - val_reconstruction_error: 56.4969 - val_regularization_error: 21.9757
Epoch 254/1000
120/120 [=====] - 16s 132ms/step - loss: 46.6732 - reconstruction_error: 24.7969 - regularization_error: 21.8763 - val_loss: 76.5684 - val_reconstruction_error: 58.1510 - val_regularization_error: 18.4174
Epoch 255/1000
120/120 [=====] - 17s 142ms/step - loss: 46.3315 - reconstruction_error: 24.6138 - regularization_error: 21.7177 - val_loss: 77.9058 - val_reconstruction_error: 58.1974 - val_regularization_error: 19.7084
Epoch 256/1000
120/120 [=====] - 17s 137ms/step - loss: 46.5380 - reconstruction_error: 24.7658 - regularization_error: 21.7722 - val_loss: 76.6691 - val_reconstruction_error: 58.1515 - val_regularization_error: 18.5176
Epoch 257/1000
120/120 [=====] - 18s 149ms/step - loss: 46.3910 - reconstruction_error: 24.6315 - regularization_error: 21.7595 - val_loss: 78.6765 - val_reconstruction_error: 57.9472 - val_regularization_error: 20.7293
Epoch 258/1000
120/120 [=====] - 17s 141ms/step - loss: 46.5116 - reconstruction_error: 24.5943 - regularization_error: 21.9173 - val_loss: 76.3300 - val_reconstruction_error: 57.5225 - val_regularization_error: 18.8076
Epoch 259/1000
120/120 [=====] - 18s 152ms/step - loss: 46.6076 - reconstruction_error: 24.6614 - regularization_error: 21.9462 - val_loss: 76.9733 - val_reconstruction_error: 57.5729 - val_regularization_error: 19.4004
Epoch 260/1000
120/120 [=====] - 19s 160ms/step - loss: 46.3834 - reconstruction_error: 24.5881 - regularization_error: 21.7952 - val_loss: 78.8612 - val_reconstruction_error: 56.8306 - val_regularization_error: 22.0306
Epoch 261/1000
120/120 [=====] - ETA: 0s - loss: 46.3838 - reconstruction_error: 24.5589 - regularization_error: 21.8249
[2023-12-01 11:01:29.725705]: Reconstructing images for epoch 261 ...
```



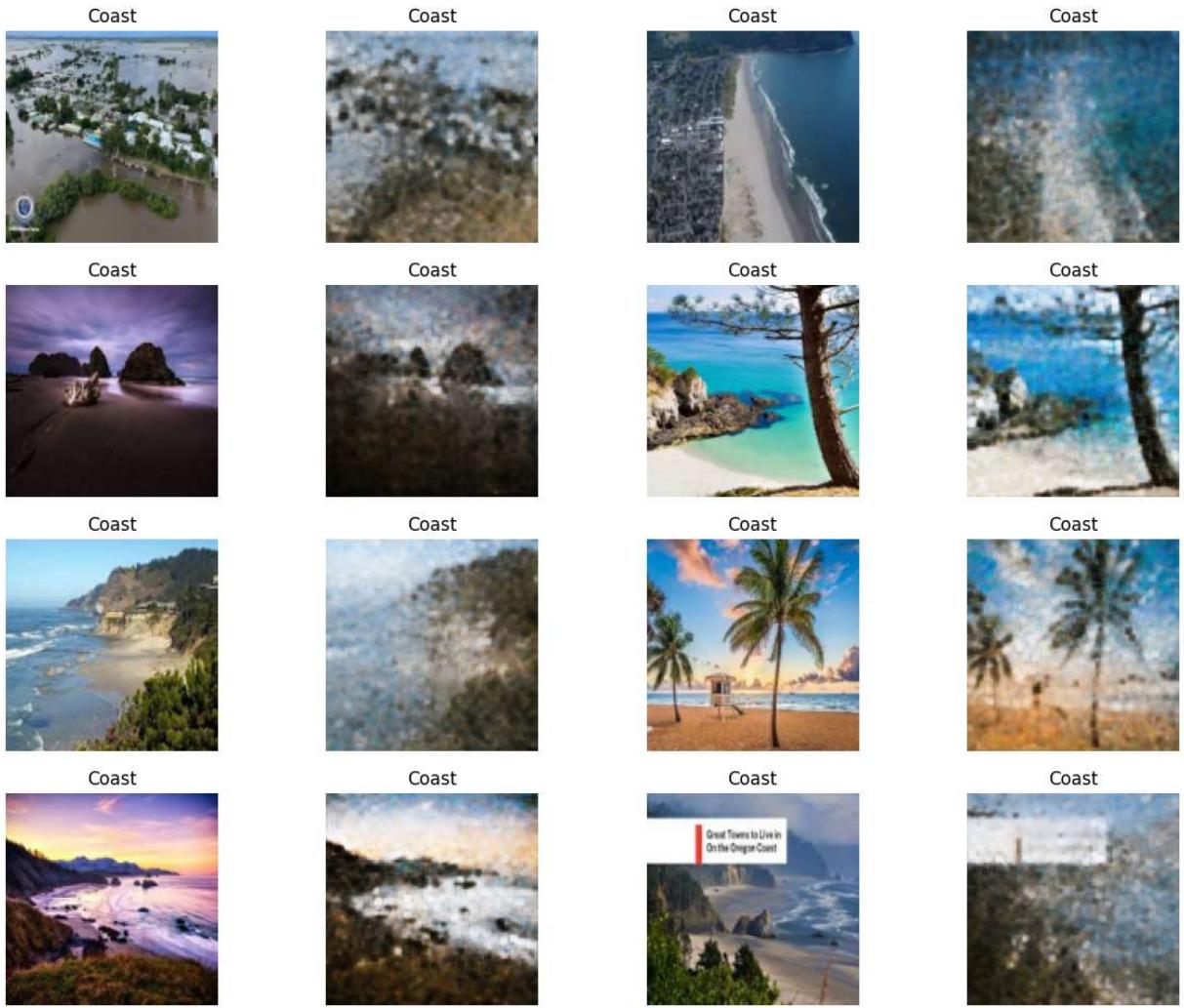
```
120/120 [=====] - 24s 201ms/step - loss: 46.3838 - reconstruction_error: 24.5589 - regularization_error: 21.8249 - val_loss: 77.4134 - val_reconstruction_error: 57.3944 - val_regularization_error: 20.0190
Epoch 262/1000
120/120 [=====] - 16s 134ms/step - loss: 46.5934 - reconstruction_error: 24.7151 - regularization_error: 21.8783 - val_loss: 77.4820 - val_reconstruction_error: 57.1063 - val_regularization_error: 20.3757
Epoch 263/1000
120/120 [=====] - 16s 134ms/step - loss: 46.1753 - reconstruction_error: 24.3889 - regularization_error: 21.7864 - val_loss: 77.9450 - val_reconstruction_error: 58.6582 - val_regularization_error: 19.2868
Epoch 264/1000
120/120 [=====] - 16s 129ms/step - loss: 46.2711 - reconstruction_error: 24.4286 - regularization_error: 21.8425 - val_loss: 78.3452 - val_reconstruction_error: 57.8403 - val_regularization_error: 20.5049
Epoch 265/1000
120/120 [=====] - 20s 168ms/step - loss: 46.2186 - reconstruction_error: 24.3538 - regularization_error: 21.8648 - val_loss: 78.4701 - val_reconstruction_error: 57.9395 - val_regularization_error: 20.5307
Epoch 266/1000
120/120 [=====] - 17s 140ms/step - loss: 46.3240 - reconstruction_error: 24.5720 - regularization_error: 21.7521 - val_loss: 77.3541 - val_reconstruction_error: 57.8696 - val_regularization_error: 19.4846
Epoch 267/1000
120/120 [=====] - 19s 157ms/step - loss: 46.1405 - reconstruction_error: 24.3369 - regularization_error: 21.8037 - val_loss: 78.8448 - val_reconstruction_error: 57.5406 - val_regularization_error: 21.3042
Epoch 268/1000
120/120 [=====] - 20s 168ms/step - loss: 46.0669 - reconstruction_error: 24.2814 - regularization_error: 21.7855 - val_loss: 77.1978 - val_reconstruction_error: 57.2729 - val_regularization_error: 19.9250
Epoch 269/1000
120/120 [=====] - 15s 124ms/step - loss: 46.2591 - reconstruction_error: 24.4633 - regularization_error: 21.7958 - val_loss: 78.3600 - val_reconstruction_error: 58.4381 - val_regularization_error: 19.9219
Epoch 270/1000
120/120 [=====] - 19s 150ms/step - loss: 45.9473 - reconstruction_error: 24.1214 - regularization_error: 21.8259 - val_loss: 77.4265 - val_reconstruction_error: 56.9588 - val_regularization_error: 20.4677
Epoch 271/1000
120/120 [=====] - ETA: 0s - loss: 46.1534 - reconstruction_error: 24.2917 - regularization_error: 21.8617
[2023-12-01 11:04:36.915047]: Reconstructing images for epoch 271 ...
```



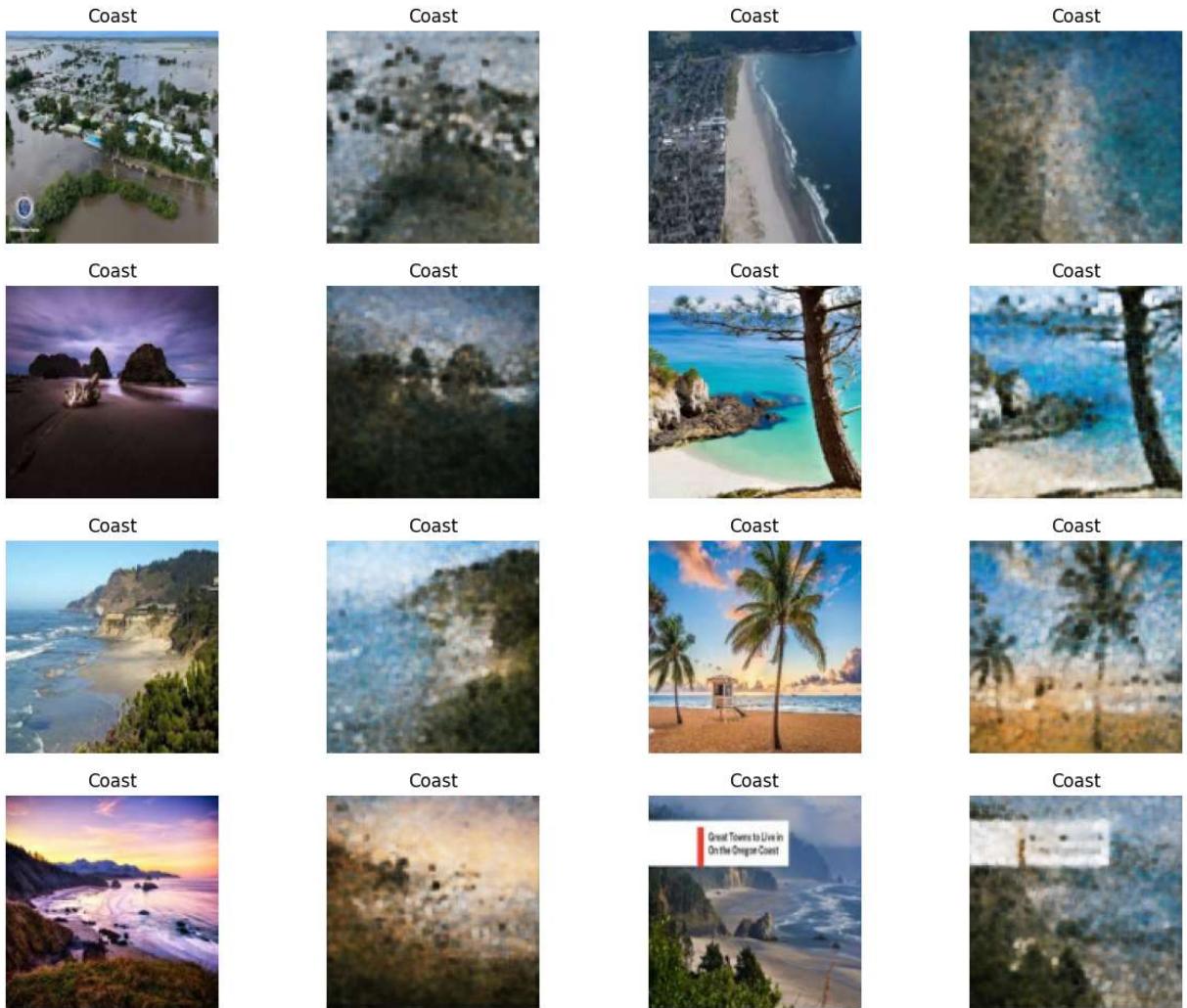
```
120/120 [=====] - 21s 172ms/step - loss: 46.1534 - reconstruction_error: 24.2917 - regularization_error: 21.8617 - val_loss: 77.8442 - val_reconstruction_error: 57.5340 - val_regularization_error: 20.3102
Epoch 272/1000
120/120 [=====] - 17s 139ms/step - loss: 45.8480 - reconstruction_error: 24.1363 - regularization_error: 21.7116 - val_loss: 78.4557 - val_reconstruction_error: 57.4632 - val_regularization_error: 20.9925
Epoch 273/1000
120/120 [=====] - 19s 160ms/step - loss: 46.1165 - reconstruction_error: 24.3424 - regularization_error: 21.7740 - val_loss: 77.8067 - val_reconstruction_error: 57.5688 - val_regularization_error: 20.2379
Epoch 274/1000
120/120 [=====] - 19s 161ms/step - loss: 45.9294 - reconstruction_error: 24.0603 - regularization_error: 21.8691 - val_loss: 78.3148 - val_reconstruction_error: 58.1005 - val_regularization_error: 20.2142
Epoch 275/1000
120/120 [=====] - 19s 161ms/step - loss: 45.9776 - reconstruction_error: 24.1636 - regularization_error: 21.8141 - val_loss: 77.9066 - val_reconstruction_error: 58.0480 - val_regularization_error: 19.8586
Epoch 276/1000
120/120 [=====] - 15s 127ms/step - loss: 46.3227 - reconstruction_error: 24.4208 - regularization_error: 21.9019 - val_loss: 78.9838 - val_reconstruction_error: 57.8378 - val_regularization_error: 21.1460
Epoch 277/1000
120/120 [=====] - 17s 141ms/step - loss: 45.7477 - reconstruction_error: 23.9638 - regularization_error: 21.7839 - val_loss: 79.0750 - val_reconstruction_error: 58.4329 - val_regularization_error: 20.6421
Epoch 278/1000
120/120 [=====] - 18s 145ms/step - loss: 45.9392 - reconstruction_error: 24.0238 - regularization_error: 21.9154 - val_loss: 78.3268 - val_reconstruction_error: 56.9224 - val_regularization_error: 21.4044
Epoch 279/1000
120/120 [=====] - 19s 154ms/step - loss: 45.7794 - reconstruction_error: 23.9465 - regularization_error: 21.8328 - val_loss: 79.2323 - val_reconstruction_error: 57.6956 - val_regularization_error: 21.5367
Epoch 280/1000
120/120 [=====] - 19s 160ms/step - loss: 45.7163 - reconstruction_error: 23.8913 - regularization_error: 21.8250 - val_loss: 77.5969 - val_reconstruction_error: 57.6801 - val_regularization_error: 19.9168
Epoch 281/1000
120/120 [=====] - ETA: 0s - loss: 45.7555 - reconstruction_error: 24.0155 - regularization_error: 21.7400
[2023-12-01 11:07:43.390720]: Reconstructing images for epoch 281 ...
```



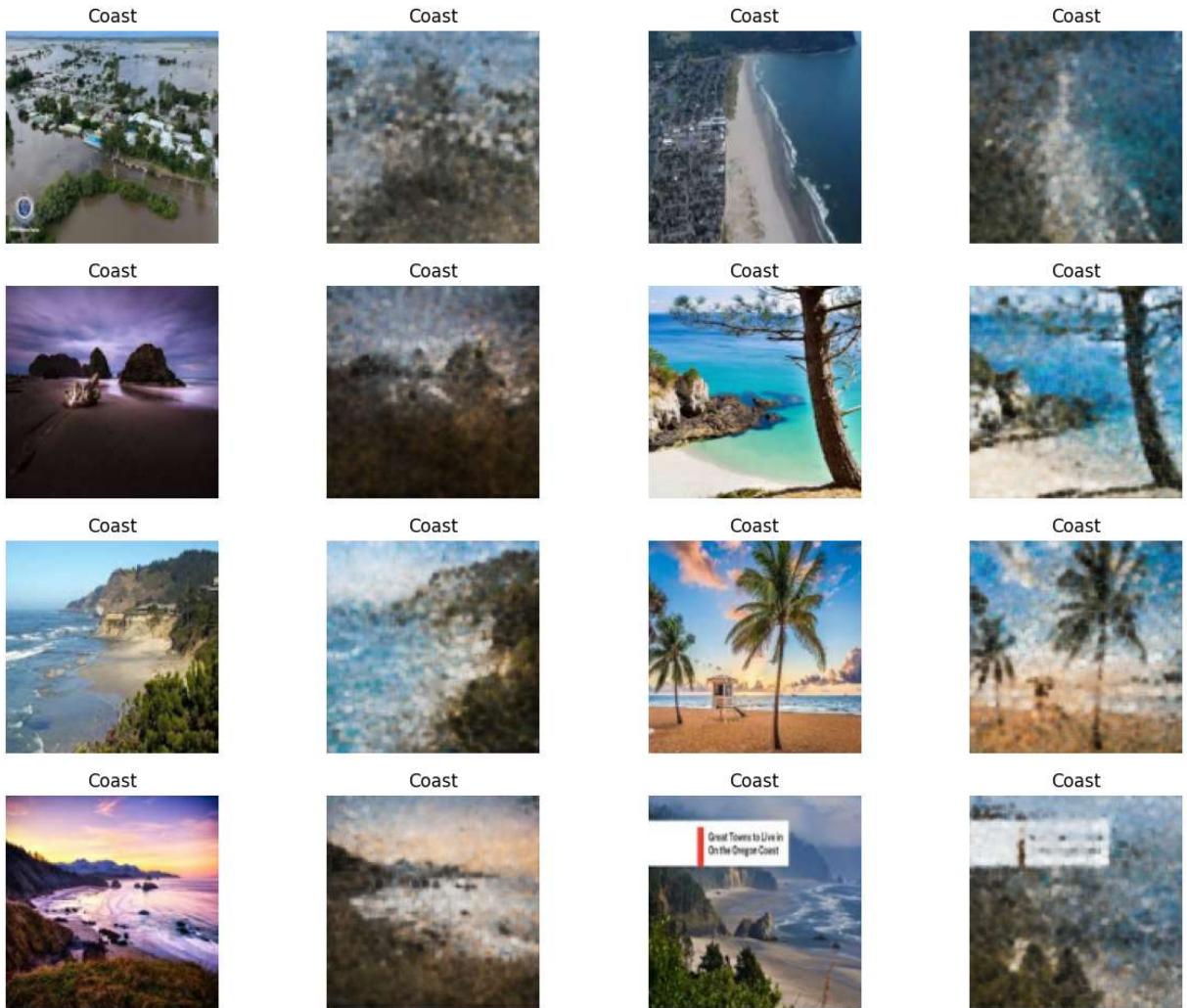
```
120/120 [=====] - 20s 167ms/step - loss: 45.7555 - reconstruction_error: 24.0155 - regularization_error: 21.7400 - val_loss: 78.8510 - val_reconstruction_error: 57.8050 - val_regularization_error: 21.0461
Epoch 282/1000
120/120 [=====] - 18s 152ms/step - loss: 45.9177 - reconstruction_error: 23.9885 - regularization_error: 21.9292 - val_loss: 78.7332 - val_reconstruction_error: 58.0077 - val_regularization_error: 20.7255
Epoch 283/1000
120/120 [=====] - 17s 142ms/step - loss: 45.7475 - reconstruction_error: 23.9430 - regularization_error: 21.8045 - val_loss: 79.3996 - val_reconstruction_error: 58.1622 - val_regularization_error: 21.2375
Epoch 284/1000
120/120 [=====] - 14s 112ms/step - loss: 45.5815 - reconstruction_error: 23.8117 - regularization_error: 21.7698 - val_loss: 77.7428 - val_reconstruction_error: 57.9847 - val_regularization_error: 19.7581
Epoch 285/1000
120/120 [=====] - 18s 145ms/step - loss: 45.5191 - reconstruction_error: 23.7970 - regularization_error: 21.7222 - val_loss: 77.6331 - val_reconstruction_error: 57.4774 - val_regularization_error: 20.1557
Epoch 286/1000
120/120 [=====] - 18s 147ms/step - loss: 45.5894 - reconstruction_error: 23.7971 - regularization_error: 21.7923 - val_loss: 77.8196 - val_reconstruction_error: 58.0177 - val_regularization_error: 19.8019
Epoch 287/1000
120/120 [=====] - 17s 143ms/step - loss: 45.5299 - reconstruction_error: 23.7381 - regularization_error: 21.7917 - val_loss: 76.9926 - val_reconstruction_error: 58.3928 - val_regularization_error: 18.5998
Epoch 288/1000
120/120 [=====] - 17s 142ms/step - loss: 45.4381 - reconstruction_error: 23.6620 - regularization_error: 21.7761 - val_loss: 78.2407 - val_reconstruction_error: 57.1835 - val_regularization_error: 21.0573
Epoch 289/1000
120/120 [=====] - 17s 141ms/step - loss: 45.3860 - reconstruction_error: 23.5683 - regularization_error: 21.8178 - val_loss: 77.7502 - val_reconstruction_error: 57.8941 - val_regularization_error: 19.8561
Epoch 290/1000
120/120 [=====] - 18s 148ms/step - loss: 45.6605 - reconstruction_error: 23.7827 - regularization_error: 21.8778 - val_loss: 77.3059 - val_reconstruction_error: 58.4267 - val_regularization_error: 18.8792
Epoch 291/1000
120/120 [=====] - ETA: 0s - loss: 45.7830 - reconstruction_error: 23.9516 - regularization_error: 21.8314
[2023-12-01 11:10:42.511605]: Reconstructing images for epoch 291 ...
```



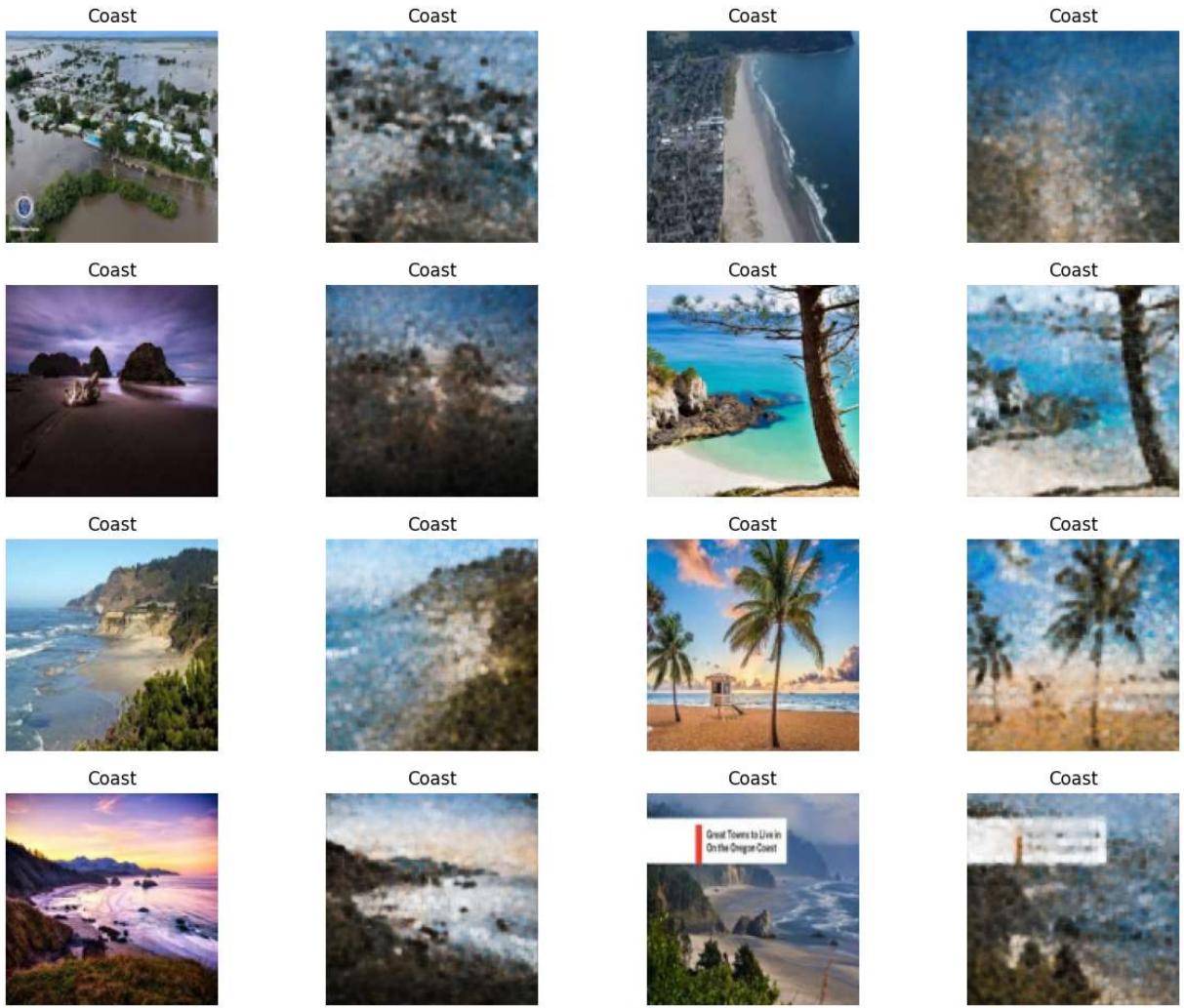
```
120/120 [=====] - 22s 179ms/step - loss: 45.7830 - reconstruction_error: 23.9516 - regularization_error: 21.8314 - val_loss: 78.9264 - val_reconstruction_error: 57.6293 - val_regularization_error: 21.2971
Epoch 292/1000
120/120 [=====] - 22s 182ms/step - loss: 45.5750 - reconstruction_error: 23.7675 - regularization_error: 21.8075 - val_loss: 78.9226 - val_reconstruction_error: 57.4574 - val_regularization_error: 21.4652
Epoch 293/1000
120/120 [=====] - 17s 140ms/step - loss: 45.5926 - reconstruction_error: 23.7425 - regularization_error: 21.8501 - val_loss: 79.3974 - val_reconstruction_error: 58.7336 - val_regularization_error: 20.6638
Epoch 294/1000
120/120 [=====] - 16s 133ms/step - loss: 45.5687 - reconstruction_error: 23.6509 - regularization_error: 21.9178 - val_loss: 78.2097 - val_reconstruction_error: 58.7880 - val_regularization_error: 19.4218
Epoch 295/1000
120/120 [=====] - 18s 145ms/step - loss: 45.2213 - reconstruction_error: 23.4753 - regularization_error: 21.7460 - val_loss: 79.2191 - val_reconstruction_error: 58.2625 - val_regularization_error: 20.9566
Epoch 296/1000
120/120 [=====] - 18s 147ms/step - loss: 45.7406 - reconstruction_error: 23.8099 - regularization_error: 21.9307 - val_loss: 80.5743 - val_reconstruction_error: 58.3463 - val_regularization_error: 22.2280
Epoch 297/1000
120/120 [=====] - 15s 128ms/step - loss: 45.4830 - reconstruction_error: 23.5289 - regularization_error: 21.9541 - val_loss: 77.6849 - val_reconstruction_error: 58.3892 - val_regularization_error: 19.2958
Epoch 298/1000
120/120 [=====] - 21s 176ms/step - loss: 45.2936 - reconstruction_error: 23.4933 - regularization_error: 21.8003 - val_loss: 78.4825 - val_reconstruction_error: 58.1267 - val_regularization_error: 20.3558
Epoch 299/1000
120/120 [=====] - 13s 112ms/step - loss: 45.3637 - reconstruction_error: 23.4808 - regularization_error: 21.8830 - val_loss: 79.7075 - val_reconstruction_error: 58.7489 - val_regularization_error: 20.9586
Epoch 300/1000
120/120 [=====] - 16s 132ms/step - loss: 45.0420 - reconstruction_error: 23.2235 - regularization_error: 21.8186 - val_loss: 79.6976 - val_reconstruction_error: 58.1117 - val_regularization_error: 21.5859
Epoch 301/1000
120/120 [=====] - ETA: 0s - loss: 45.5889 - reconstruction_error: 23.7735 - regularization_error: 21.8154
[2023-12-01 11:13:39.205739]: Reconstructing images for epoch 301 ...
```



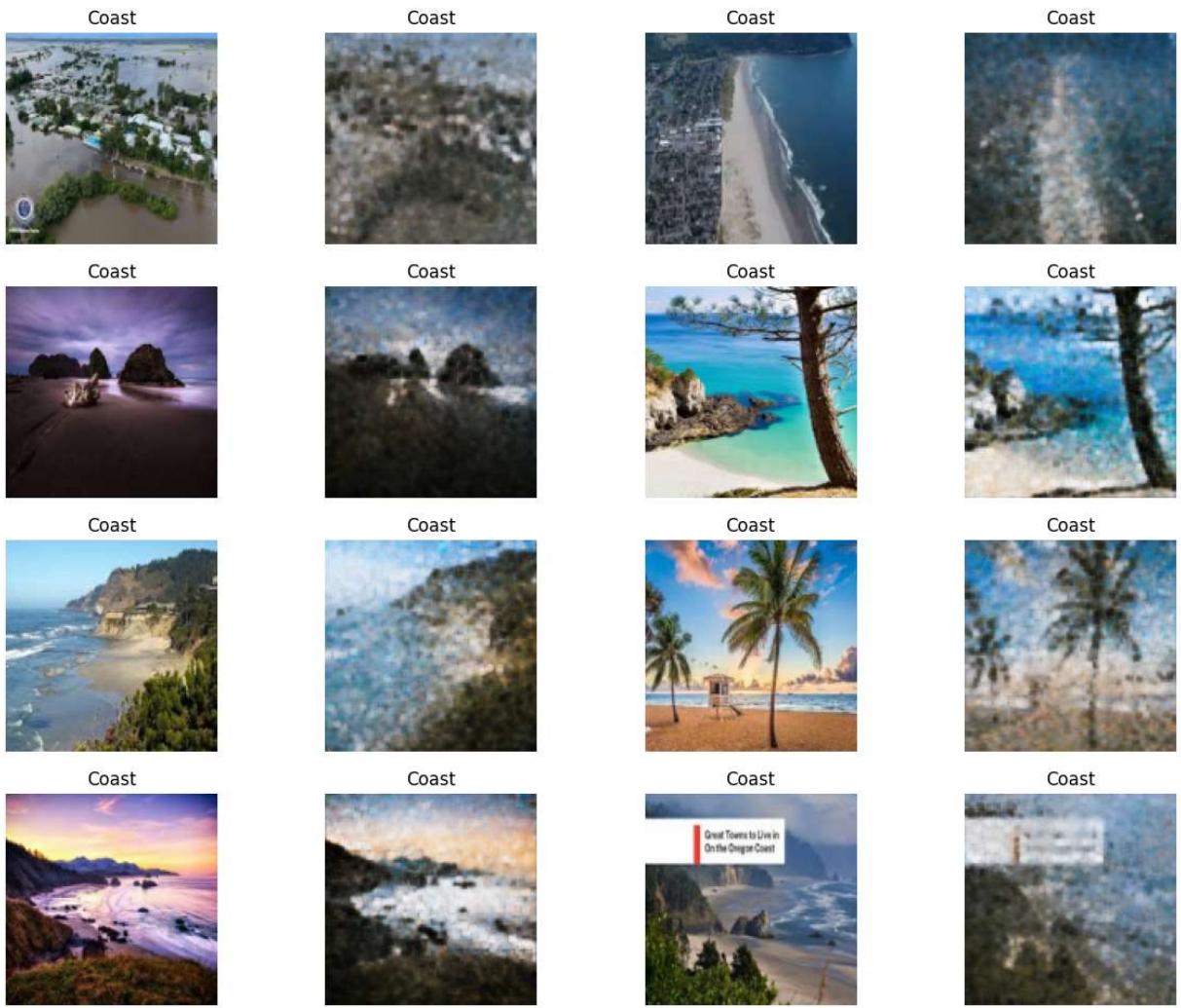
```
120/120 [=====] - 19s 154ms/step - loss: 45.5889 - reconstruction_error: 23.7735 - regularization_error: 21.8154 - val_loss: 78.2764 - val_reconstruction_error: 58.8749 - val_regularization_error: 19.4015
Epoch 302/1000
120/120 [=====] - 16s 130ms/step - loss: 45.0786 - reconstruction_error: 23.4125 - regularization_error: 21.6661 - val_loss: 77.6051 - val_reconstruction_error: 58.4540 - val_regularization_error: 19.1511
Epoch 303/1000
120/120 [=====] - 15s 120ms/step - loss: 45.2032 - reconstruction_error: 23.3721 - regularization_error: 21.8311 - val_loss: 78.7334 - val_reconstruction_error: 59.0706 - val_regularization_error: 19.6627
Epoch 304/1000
120/120 [=====] - 19s 162ms/step - loss: 45.3605 - reconstruction_error: 23.4955 - regularization_error: 21.8650 - val_loss: 79.2012 - val_reconstruction_error: 57.7348 - val_regularization_error: 21.4664
Epoch 305/1000
120/120 [=====] - 17s 138ms/step - loss: 45.0736 - reconstruction_error: 23.2978 - regularization_error: 21.7759 - val_loss: 79.2064 - val_reconstruction_error: 57.6212 - val_regularization_error: 21.5851
Epoch 306/1000
120/120 [=====] - 18s 149ms/step - loss: 45.2767 - reconstruction_error: 23.4029 - regularization_error: 21.8738 - val_loss: 78.1763 - val_reconstruction_error: 57.4439 - val_regularization_error: 20.7324
Epoch 307/1000
120/120 [=====] - 16s 131ms/step - loss: 45.0582 - reconstruction_error: 23.3408 - regularization_error: 21.7174 - val_loss: 79.2797 - val_reconstruction_error: 58.1639 - val_regularization_error: 21.1158
Epoch 308/1000
120/120 [=====] - 16s 128ms/step - loss: 45.1138 - reconstruction_error: 23.1819 - regularization_error: 21.9319 - val_loss: 79.6623 - val_reconstruction_error: 58.9546 - val_regularization_error: 20.7077
Epoch 309/1000
120/120 [=====] - 19s 154ms/step - loss: 45.0886 - reconstruction_error: 23.2752 - regularization_error: 21.8134 - val_loss: 80.3409 - val_reconstruction_error: 59.2371 - val_regularization_error: 21.1038
Epoch 310/1000
120/120 [=====] - 16s 134ms/step - loss: 44.8635 - reconstruction_error: 23.2179 - regularization_error: 21.6456 - val_loss: 80.0876 - val_reconstruction_error: 59.0232 - val_regularization_error: 21.0644
Epoch 311/1000
120/120 [=====] - ETA: 0s - loss: 44.9162 - reconstruction_error: 23.0981 - regularization_error: 21.8181
[2023-12-01 11:16:32.368720]: Reconstructing images for epoch 311 ...
```



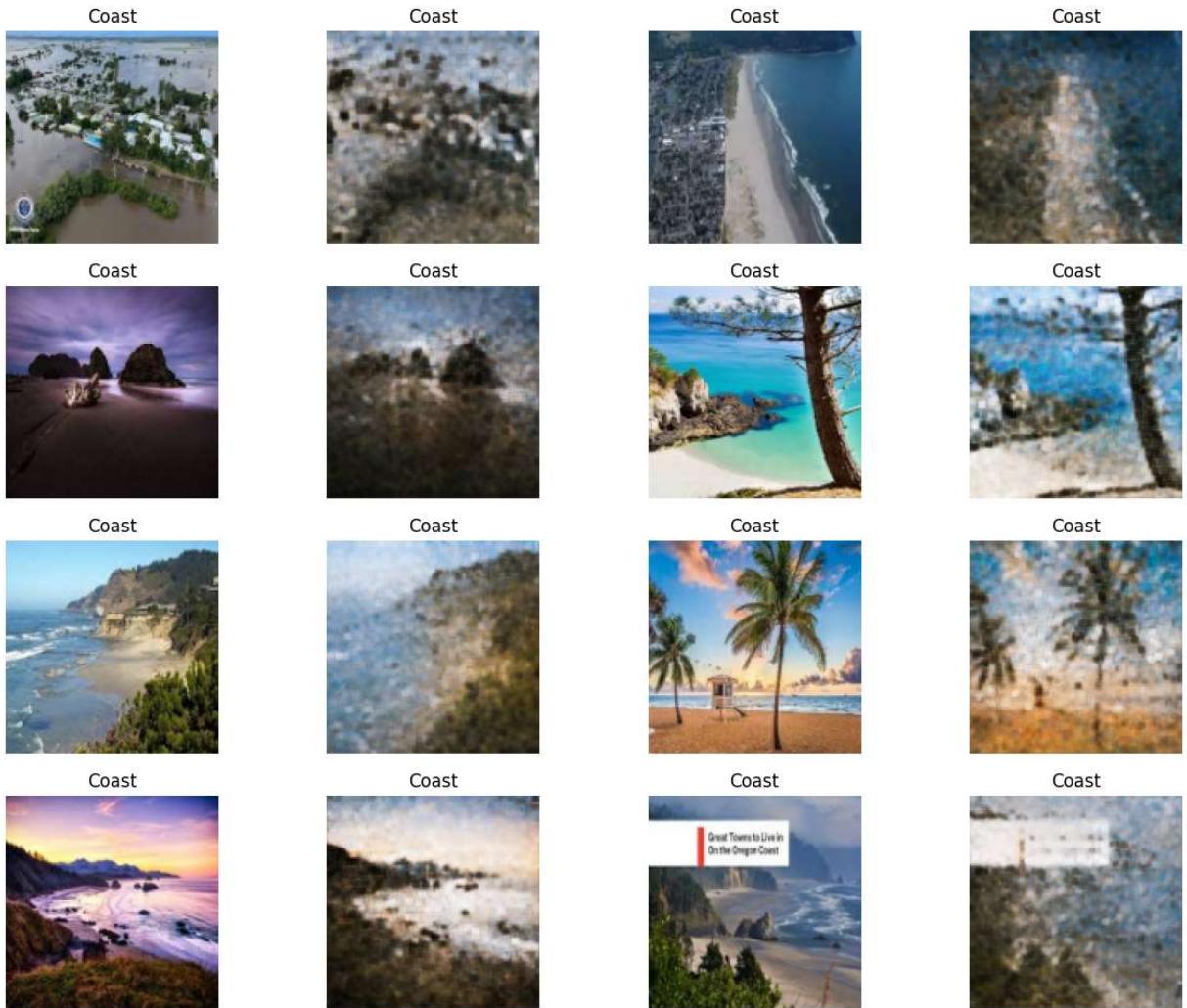
```
120/120 [=====] - 19s 159ms/step - loss: 44.9162 - reconstruction_error: 23.0981 - regularization_error: 21.8181 - val_loss: 77.7058 - val_reconstruction_error: 58.6552 - val_regularization_error: 19.0506
Epoch 312/1000
120/120 [=====] - 19s 161ms/step - loss: 44.8526 - reconstruction_error: 23.0646 - regularization_error: 21.7880 - val_loss: 79.6683 - val_reconstruction_error: 58.2004 - val_regularization_error: 21.4679
Epoch 313/1000
120/120 [=====] - 16s 135ms/step - loss: 45.1832 - reconstruction_error: 23.2413 - regularization_error: 21.9419 - val_loss: 79.2144 - val_reconstruction_error: 57.4237 - val_regularization_error: 21.7908
Epoch 314/1000
120/120 [=====] - 17s 140ms/step - loss: 44.7928 - reconstruction_error: 23.1428 - regularization_error: 21.6500 - val_loss: 78.2865 - val_reconstruction_error: 57.9681 - val_regularization_error: 20.3185
Epoch 315/1000
120/120 [=====] - 16s 135ms/step - loss: 44.5218 - reconstruction_error: 22.9785 - regularization_error: 21.5433 - val_loss: 79.2699 - val_reconstruction_error: 57.9736 - val_regularization_error: 21.2963
Epoch 316/1000
120/120 [=====] - 17s 138ms/step - loss: 45.0531 - reconstruction_error: 23.1806 - regularization_error: 21.8725 - val_loss: 80.0629 - val_reconstruction_error: 58.8443 - val_regularization_error: 21.2185
Epoch 317/1000
120/120 [=====] - 17s 142ms/step - loss: 45.0756 - reconstruction_error: 23.2768 - regularization_error: 21.7989 - val_loss: 80.9319 - val_reconstruction_error: 59.1463 - val_regularization_error: 21.7856
Epoch 318/1000
120/120 [=====] - 16s 131ms/step - loss: 44.7835 - reconstruction_error: 22.9881 - regularization_error: 21.7953 - val_loss: 80.6767 - val_reconstruction_error: 59.1591 - val_regularization_error: 21.5176
Epoch 319/1000
120/120 [=====] - 15s 121ms/step - loss: 44.7917 - reconstruction_error: 22.9994 - regularization_error: 21.7923 - val_loss: 79.2852 - val_reconstruction_error: 58.5138 - val_regularization_error: 20.7714
Epoch 320/1000
120/120 [=====] - 17s 141ms/step - loss: 44.9100 - reconstruction_error: 23.2194 - regularization_error: 21.6905 - val_loss: 78.8648 - val_reconstruction_error: 59.0918 - val_regularization_error: 19.7730
Epoch 321/1000
120/120 [=====] - ETA: 0s - loss: 45.0158 - reconstruction_error: 23.1424 - regularization_error: 21.8734
[2023-12-01 11:19:25.938122]: Reconstructing images for epoch 321 ...
```



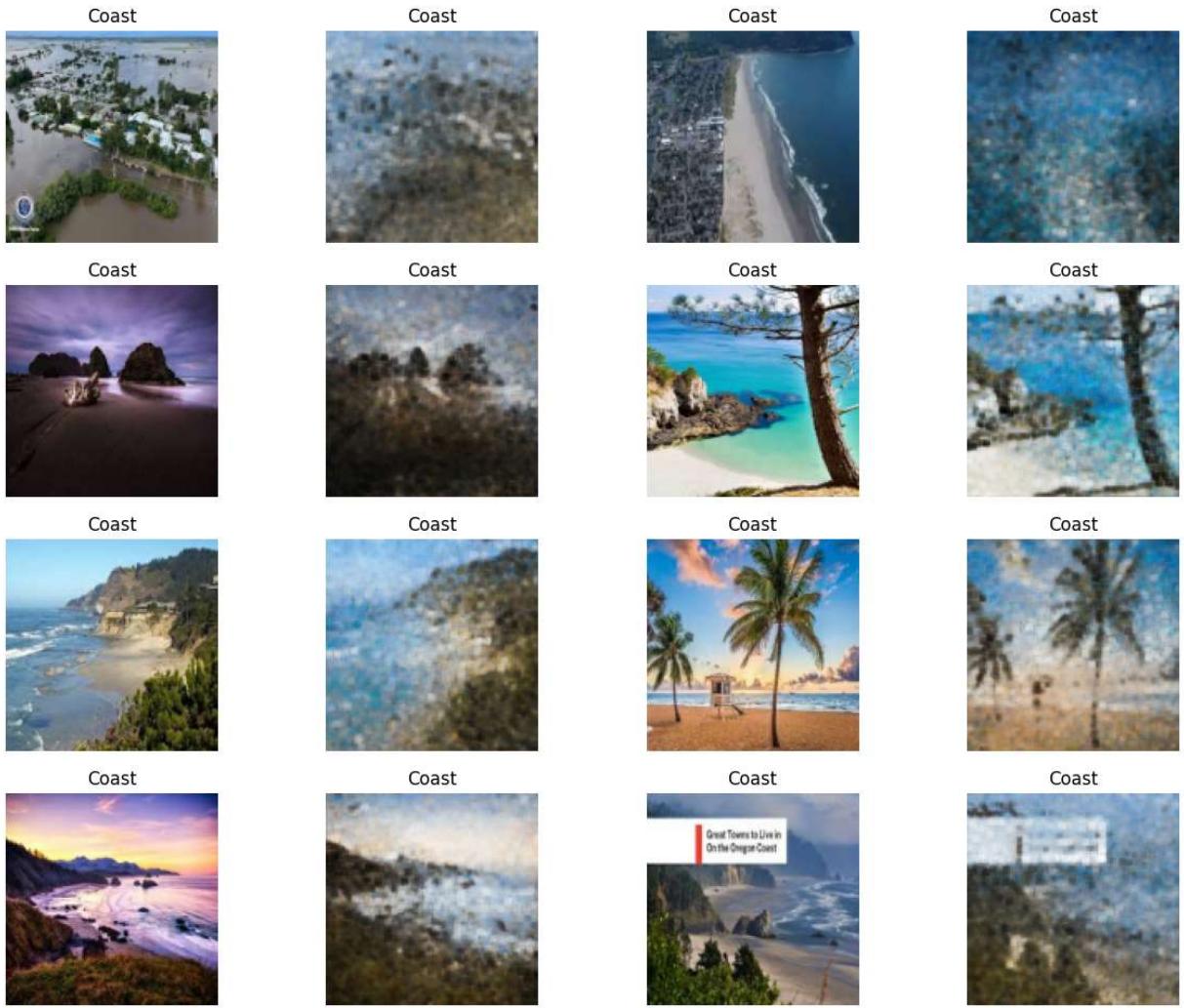
```
120/120 [=====] - 21s 175ms/step - loss: 45.0158 - reconstruction_error: 23.1424 - regularization_error: 21.8734 - val_loss: 78.9918 - val_reconstruction_error: 57.9726 - val_regularization_error: 21.0192
Epoch 322/1000
120/120 [=====] - 16s 133ms/step - loss: 44.6059 - reconstruction_error: 22.7916 - regularization_error: 21.8143 - val_loss: 77.6114 - val_reconstruction_error: 57.8636 - val_regularization_error: 19.7478
Epoch 323/1000
120/120 [=====] - 18s 148ms/step - loss: 44.7343 - reconstruction_error: 22.8578 - regularization_error: 21.8765 - val_loss: 78.4971 - val_reconstruction_error: 58.5168 - val_regularization_error: 19.9802
Epoch 324/1000
120/120 [=====] - 16s 135ms/step - loss: 44.8649 - reconstruction_error: 23.0757 - regularization_error: 21.7892 - val_loss: 79.7782 - val_reconstruction_error: 59.6227 - val_regularization_error: 20.1554
Epoch 325/1000
120/120 [=====] - 17s 132ms/step - loss: 44.7230 - reconstruction_error: 22.8735 - regularization_error: 21.8494 - val_loss: 78.3961 - val_reconstruction_error: 59.0942 - val_regularization_error: 19.3019
Epoch 326/1000
120/120 [=====] - 17s 141ms/step - loss: 44.5270 - reconstruction_error: 22.8133 - regularization_error: 21.7136 - val_loss: 78.9181 - val_reconstruction_error: 60.1149 - val_regularization_error: 18.8032
Epoch 327/1000
120/120 [=====] - 13s 109ms/step - loss: 44.6765 - reconstruction_error: 22.9476 - regularization_error: 21.7289 - val_loss: 78.7253 - val_reconstruction_error: 58.0844 - val_regularization_error: 20.6410
Epoch 328/1000
120/120 [=====] - 15s 127ms/step - loss: 44.6263 - reconstruction_error: 22.8439 - regularization_error: 21.7824 - val_loss: 79.1811 - val_reconstruction_error: 58.4229 - val_regularization_error: 20.7581
Epoch 329/1000
120/120 [=====] - 17s 138ms/step - loss: 44.7391 - reconstruction_error: 22.8147 - regularization_error: 21.9244 - val_loss: 77.6607 - val_reconstruction_error: 58.6843 - val_regularization_error: 18.9764
Epoch 330/1000
120/120 [=====] - 19s 155ms/step - loss: 44.8106 - reconstruction_error: 23.0575 - regularization_error: 21.7531 - val_loss: 80.0583 - val_reconstruction_error: 57.3717 - val_regularization_error: 22.6865
Epoch 331/1000
120/120 [=====] - ETA: 0s - loss: 44.5078 - reconstruction_error: 22.7327 - regularization_error: 21.7751
[2023-12-01 11:22:14.078013]: Reconstructing images for epoch 331 ...
```



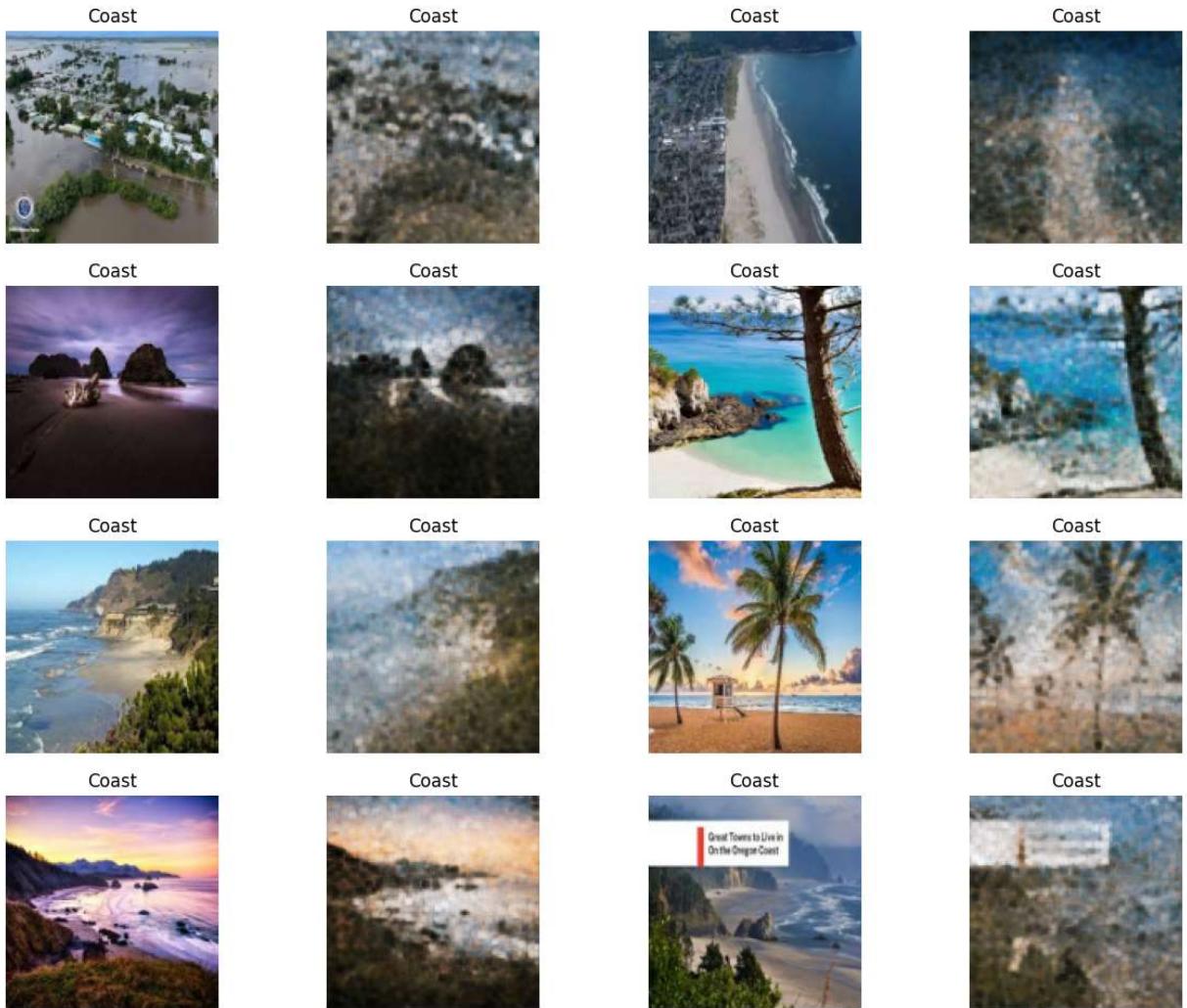
```
120/120 [=====] - 19s 160ms/step - loss: 44.5078 - reconstruction_error: 22.7327 - regularization_error: 21.7751 - val_loss: 78.6141 - val_reconstruction_error: 58.6013 - val_regularization_error: 20.0128
Epoch 332/1000
120/120 [=====] - 17s 138ms/step - loss: 44.5579 - reconstruction_error: 22.7671 - regularization_error: 21.7908 - val_loss: 79.4783 - val_reconstruction_error: 59.1171 - val_regularization_error: 20.3612
Epoch 333/1000
120/120 [=====] - 16s 129ms/step - loss: 44.5344 - reconstruction_error: 22.7695 - regularization_error: 21.7649 - val_loss: 80.0793 - val_reconstruction_error: 59.5191 - val_regularization_error: 20.5601
Epoch 334/1000
120/120 [=====] - 15s 127ms/step - loss: 44.6329 - reconstruction_error: 22.8714 - regularization_error: 21.7616 - val_loss: 79.4365 - val_reconstruction_error: 59.2118 - val_regularization_error: 20.2248
Epoch 335/1000
120/120 [=====] - 17s 138ms/step - loss: 44.5241 - reconstruction_error: 22.7254 - regularization_error: 21.7988 - val_loss: 80.2563 - val_reconstruction_error: 58.9262 - val_regularization_error: 21.3302
Epoch 336/1000
120/120 [=====] - 18s 148ms/step - loss: 44.4936 - reconstruction_error: 22.6736 - regularization_error: 21.8201 - val_loss: 79.0547 - val_reconstruction_error: 58.4746 - val_regularization_error: 20.5802
Epoch 337/1000
120/120 [=====] - 18s 149ms/step - loss: 44.5412 - reconstruction_error: 22.6594 - regularization_error: 21.8818 - val_loss: 79.6575 - val_reconstruction_error: 59.4179 - val_regularization_error: 20.2396
Epoch 338/1000
120/120 [=====] - 17s 137ms/step - loss: 44.3881 - reconstruction_error: 22.6710 - regularization_error: 21.7171 - val_loss: 79.4088 - val_reconstruction_error: 58.7220 - val_regularization_error: 20.6868
Epoch 339/1000
120/120 [=====] - 17s 137ms/step - loss: 44.6219 - reconstruction_error: 22.8248 - regularization_error: 21.7971 - val_loss: 78.8357 - val_reconstruction_error: 58.8439 - val_regularization_error: 19.9918
Epoch 340/1000
120/120 [=====] - 18s 146ms/step - loss: 44.2861 - reconstruction_error: 22.5099 - regularization_error: 21.7762 - val_loss: 78.9794 - val_reconstruction_error: 58.4408 - val_regularization_error: 20.5386
Epoch 341/1000
120/120 [=====] - ETA: 0s - loss: 44.2068 - reconstruction_error: 22.4337 - regularization_error: 21.7732
[2023-12-01 11:25:07.377240]: Reconstructing images for epoch 341 ...
```



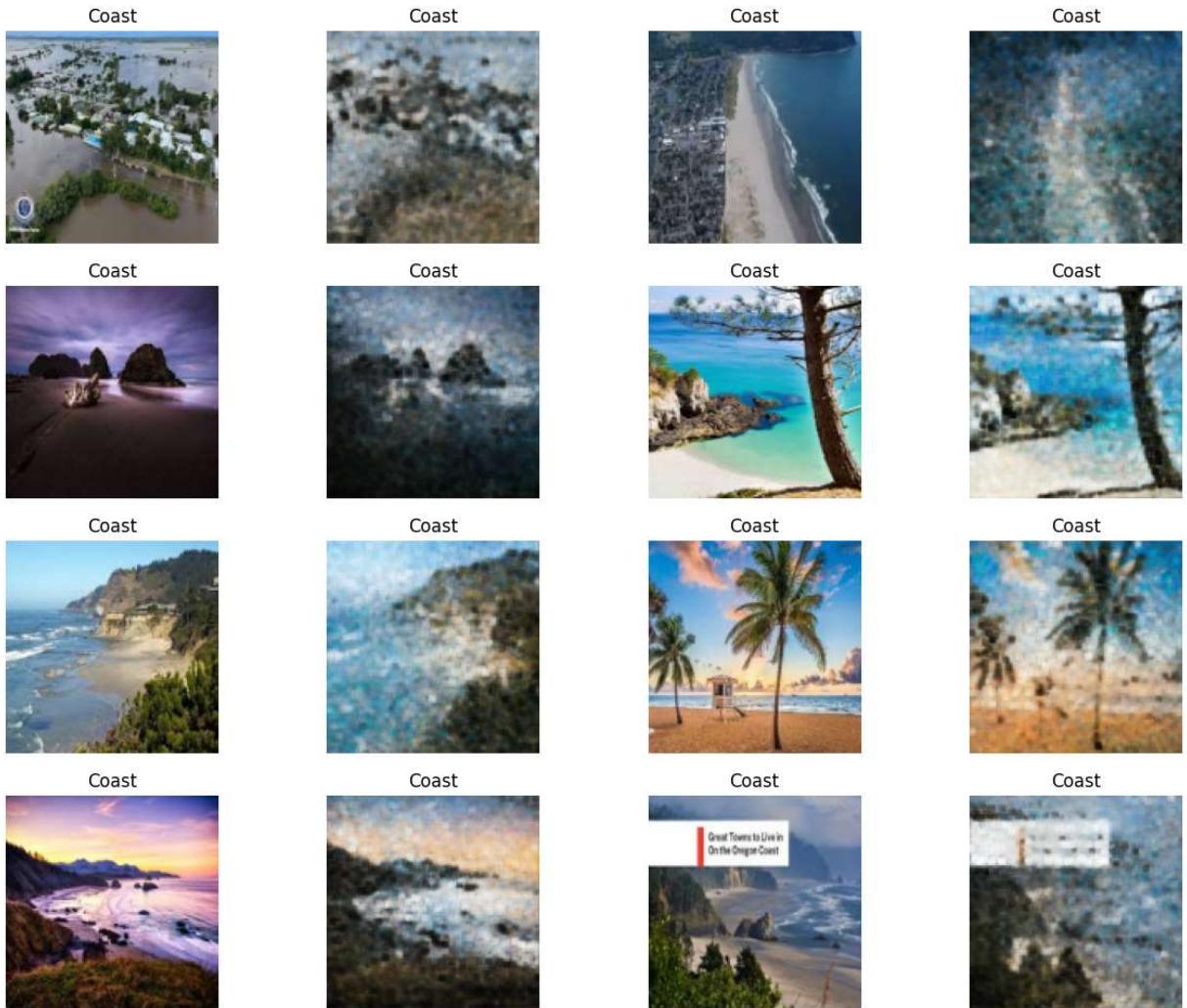
```
120/120 [=====] - 18s 147ms/step - loss: 44.2068 - reconstruction_error: 22.4337 - regularization_error: 21.7732 - val_loss: 80.2047 - val_reconstruction_error: 58.8808 - val_regularization_error: 21.3239
Epoch 342/1000
120/120 [=====] - 19s 152ms/step - loss: 44.3696 - reconstruction_error: 22.5862 - regularization_error: 21.7835 - val_loss: 78.6412 - val_reconstruction_error: 58.4514 - val_regularization_error: 20.1898
Epoch 343/1000
120/120 [=====] - 18s 147ms/step - loss: 44.3549 - reconstruction_error: 22.5325 - regularization_error: 21.8225 - val_loss: 79.5477 - val_reconstruction_error: 58.9098 - val_regularization_error: 20.6379
Epoch 344/1000
120/120 [=====] - 16s 137ms/step - loss: 44.4022 - reconstruction_error: 22.5887 - regularization_error: 21.8134 - val_loss: 79.9707 - val_reconstruction_error: 58.8330 - val_regularization_error: 21.1377
Epoch 345/1000
120/120 [=====] - 18s 147ms/step - loss: 44.1178 - reconstruction_error: 22.4240 - regularization_error: 21.6938 - val_loss: 78.6878 - val_reconstruction_error: 58.0332 - val_regularization_error: 20.6546
Epoch 346/1000
120/120 [=====] - 18s 144ms/step - loss: 44.1030 - reconstruction_error: 22.2966 - regularization_error: 21.8063 - val_loss: 78.8823 - val_reconstruction_error: 59.2022 - val_regularization_error: 19.6801
Epoch 347/1000
120/120 [=====] - 14s 119ms/step - loss: 44.4763 - reconstruction_error: 22.6578 - regularization_error: 21.8184 - val_loss: 79.7068 - val_reconstruction_error: 59.6749 - val_regularization_error: 20.0319
Epoch 348/1000
120/120 [=====] - 19s 156ms/step - loss: 43.9869 - reconstruction_error: 22.3384 - regularization_error: 21.6485 - val_loss: 79.0360 - val_reconstruction_error: 57.9602 - val_regularization_error: 21.0758
Epoch 349/1000
120/120 [=====] - 20s 168ms/step - loss: 44.3666 - reconstruction_error: 22.5398 - regularization_error: 21.8267 - val_loss: 78.9115 - val_reconstruction_error: 59.4502 - val_regularization_error: 19.4613
Epoch 350/1000
120/120 [=====] - 19s 157ms/step - loss: 44.1206 - reconstruction_error: 22.3735 - regularization_error: 21.7471 - val_loss: 80.2457 - val_reconstruction_error: 58.0944 - val_regularization_error: 22.1513
Epoch 351/1000
120/120 [=====] - ETA: 0s - loss: 44.0505 - reconstruction_error: 22.3891 - regularization_error: 21.6614
[2023-12-01 11:28:11.834793]: Reconstructing images for epoch 351 ...
```



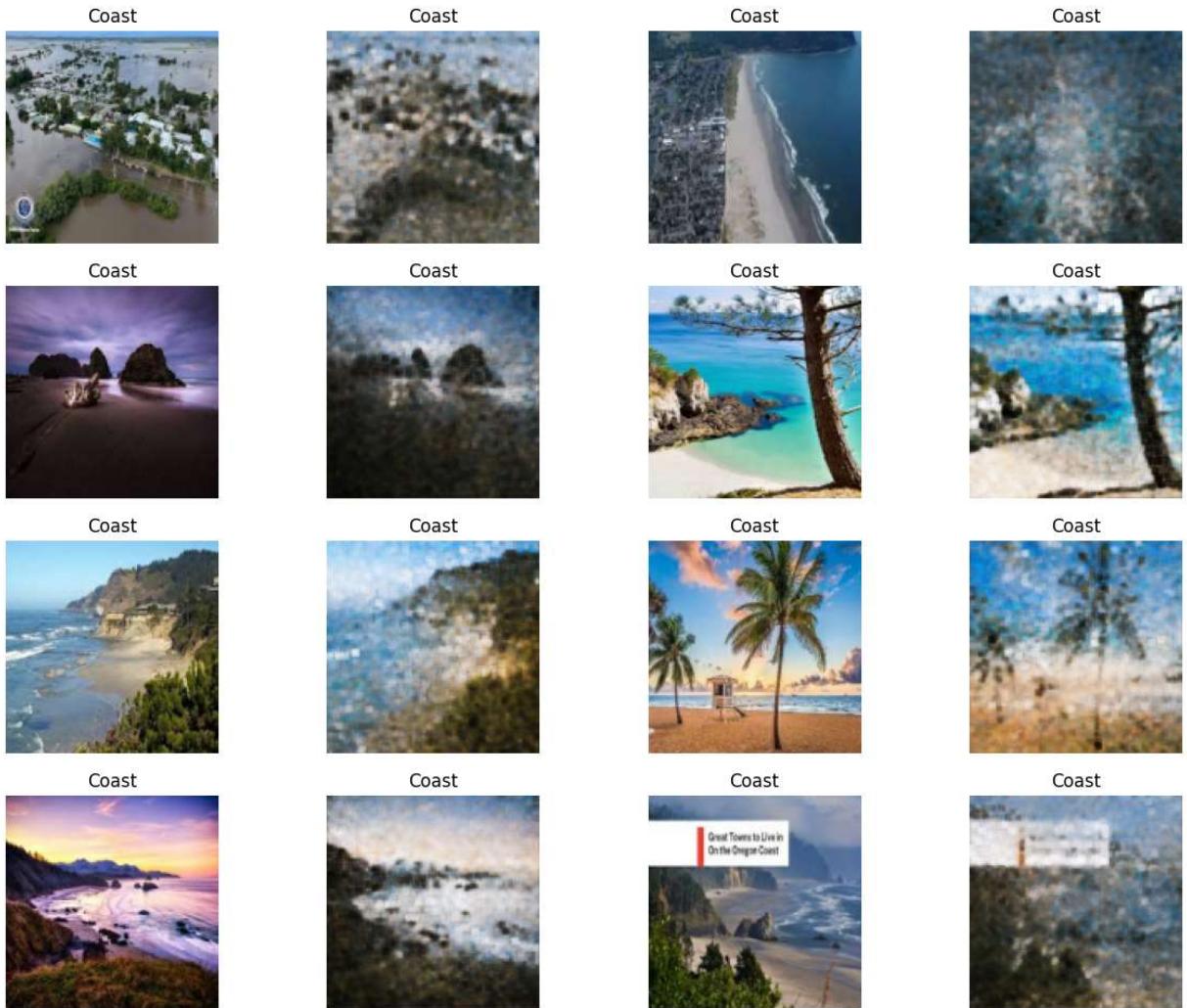
```
120/120 [=====] - 19s 158ms/step - loss: 44.0505 - reconstruction_error: 22.3891 - regularization_error: 21.6614 - val_loss: 78.2576 - val_reconstruction_error: 59.8157 - val_regularization_error: 18.4419
Epoch 352/1000
120/120 [=====] - 18s 150ms/step - loss: 44.3703 - reconstruction_error: 22.5016 - regularization_error: 21.8687 - val_loss: 79.0022 - val_reconstruction_error: 59.8707 - val_regularization_error: 19.1316
Epoch 353/1000
120/120 [=====] - 16s 131ms/step - loss: 44.1976 - reconstruction_error: 22.4695 - regularization_error: 21.7281 - val_loss: 80.1946 - val_reconstruction_error: 59.3539 - val_regularization_error: 20.8407
Epoch 354/1000
120/120 [=====] - 16s 132ms/step - loss: 43.9033 - reconstruction_error: 22.1815 - regularization_error: 21.7218 - val_loss: 79.8233 - val_reconstruction_error: 59.0156 - val_regularization_error: 20.8077
Epoch 355/1000
120/120 [=====] - 16s 132ms/step - loss: 43.7891 - reconstruction_error: 22.1800 - regularization_error: 21.6091 - val_loss: 80.4859 - val_reconstruction_error: 59.9331 - val_regularization_error: 20.5528
Epoch 356/1000
120/120 [=====] - 16s 135ms/step - loss: 44.0184 - reconstruction_error: 22.3366 - regularization_error: 21.6818 - val_loss: 78.3904 - val_reconstruction_error: 59.4638 - val_regularization_error: 18.9266
Epoch 357/1000
120/120 [=====] - 18s 147ms/step - loss: 43.8281 - reconstruction_error: 22.1260 - regularization_error: 21.7020 - val_loss: 78.4734 - val_reconstruction_error: 58.3060 - val_regularization_error: 20.1674
Epoch 358/1000
120/120 [=====] - 18s 150ms/step - loss: 44.1938 - reconstruction_error: 22.3800 - regularization_error: 21.8139 - val_loss: 79.5641 - val_reconstruction_error: 59.1985 - val_regularization_error: 20.3656
Epoch 359/1000
120/120 [=====] - 19s 156ms/step - loss: 43.8344 - reconstruction_error: 22.1807 - regularization_error: 21.6537 - val_loss: 79.0131 - val_reconstruction_error: 59.2122 - val_regularization_error: 19.8008
Epoch 360/1000
120/120 [=====] - 18s 150ms/step - loss: 43.9306 - reconstruction_error: 22.1461 - regularization_error: 21.7845 - val_loss: 78.7491 - val_reconstruction_error: 58.0149 - val_regularization_error: 20.7343
Epoch 361/1000
120/120 [=====] - ETA: 0s - loss: 43.8327 - reconstruction_error: 22.1952 - regularization_error: 21.6375
[2023-12-01 11:31:07.451529]: Reconstructing images for epoch 361 ...
```



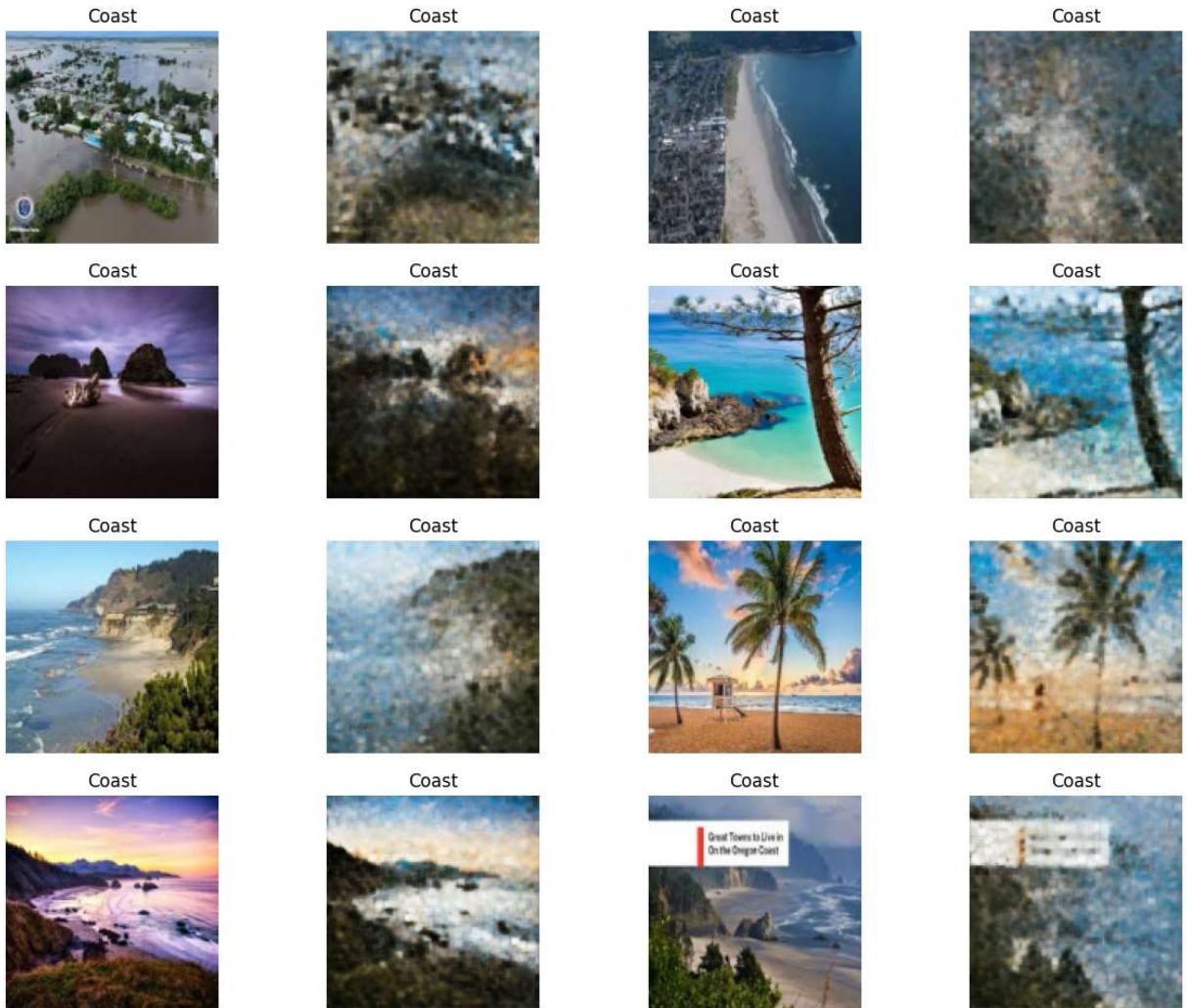
```
120/120 [=====] - 19s 154ms/step - loss: 43.8327 - reconstruction_error: 22.1952 - regularization_error: 21.6375 - val_loss: 81.6303 - val_reconstruction_error: 60.8567 - val_regularization_error: 20.7736
Epoch 362/1000
120/120 [=====] - 19s 159ms/step - loss: 44.1209 - reconstruction_error: 22.3081 - regularization_error: 21.8128 - val_loss: 79.2756 - val_reconstruction_error: 59.5239 - val_regularization_error: 19.7517
Epoch 363/1000
120/120 [=====] - 19s 161ms/step - loss: 43.9503 - reconstruction_error: 22.1998 - regularization_error: 21.7505 - val_loss: 79.5348 - val_reconstruction_error: 59.6433 - val_regularization_error: 19.8914
Epoch 364/1000
120/120 [=====] - 16s 129ms/step - loss: 43.6453 - reconstruction_error: 21.9697 - regularization_error: 21.6757 - val_loss: 79.8284 - val_reconstruction_error: 59.5738 - val_regularization_error: 20.2546
Epoch 365/1000
120/120 [=====] - 19s 155ms/step - loss: 43.6932 - reconstruction_error: 22.0241 - regularization_error: 21.6691 - val_loss: 78.9049 - val_reconstruction_error: 58.7437 - val_regularization_error: 20.1612
Epoch 366/1000
120/120 [=====] - 17s 141ms/step - loss: 43.9355 - reconstruction_error: 22.1553 - regularization_error: 21.7803 - val_loss: 79.7353 - val_reconstruction_error: 59.3156 - val_regularization_error: 20.4197
Epoch 367/1000
120/120 [=====] - 16s 131ms/step - loss: 43.8385 - reconstruction_error: 22.1324 - regularization_error: 21.7061 - val_loss: 78.2490 - val_reconstruction_error: 59.2433 - val_regularization_error: 19.0057
Epoch 368/1000
120/120 [=====] - 18s 151ms/step - loss: 43.7879 - reconstruction_error: 22.1606 - regularization_error: 21.6274 - val_loss: 78.8559 - val_reconstruction_error: 58.9168 - val_regularization_error: 19.9391
Epoch 369/1000
120/120 [=====] - 17s 141ms/step - loss: 43.8779 - reconstruction_error: 22.1349 - regularization_error: 21.7430 - val_loss: 81.0701 - val_reconstruction_error: 60.4125 - val_regularization_error: 20.6576
Epoch 370/1000
120/120 [=====] - 18s 152ms/step - loss: 43.8137 - reconstruction_error: 22.0168 - regularization_error: 21.7969 - val_loss: 79.5158 - val_reconstruction_error: 59.7482 - val_regularization_error: 19.7676
Epoch 371/1000
120/120 [=====] - ETA: 0s - loss: 43.9856 - reconstruction_error: 22.1652 - regularization_error: 21.8203
[2023-12-01 11:34:10.097349]: Reconstructing images for epoch 371 ...
```



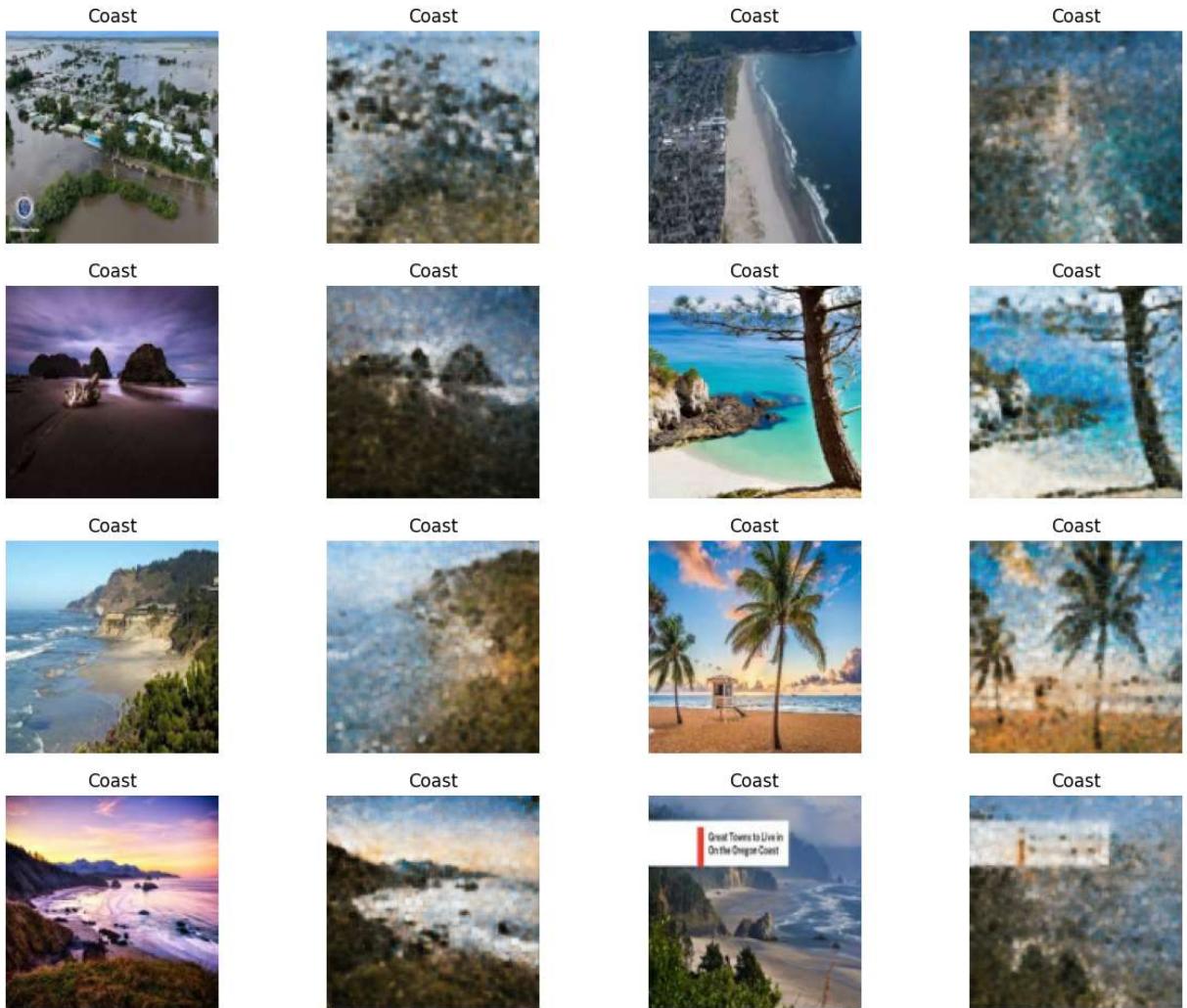
```
120/120 [=====] - 21s 174ms/step - loss: 43.9856 - reconstruction_error: 22.1652 - regularization_error: 21.8203 - val_loss: 80.6721 - val_reconstruction_error: 58.3135 - val_regularization_error: 22.3586
Epoch 372/1000
120/120 [=====] - 15s 118ms/step - loss: 44.0354 - reconstruction_error: 22.2786 - regularization_error: 21.7568 - val_loss: 79.1466 - val_reconstruction_error: 58.4554 - val_regularization_error: 20.6912
Epoch 373/1000
120/120 [=====] - 18s 147ms/step - loss: 43.4925 - reconstruction_error: 21.7559 - regularization_error: 21.7366 - val_loss: 79.0205 - val_reconstruction_error: 59.1386 - val_regularization_error: 19.8819
Epoch 374/1000
120/120 [=====] - 16s 136ms/step - loss: 44.0154 - reconstruction_error: 22.2199 - regularization_error: 21.7955 - val_loss: 79.1883 - val_reconstruction_error: 59.2426 - val_regularization_error: 19.9457
Epoch 375/1000
120/120 [=====] - 19s 160ms/step - loss: 43.6590 - reconstruction_error: 21.9991 - regularization_error: 21.6600 - val_loss: 79.2480 - val_reconstruction_error: 59.0588 - val_regularization_error: 20.1892
Epoch 376/1000
120/120 [=====] - 15s 121ms/step - loss: 43.5693 - reconstruction_error: 21.8516 - regularization_error: 21.7177 - val_loss: 79.0342 - val_reconstruction_error: 58.6316 - val_regularization_error: 20.4026
Epoch 377/1000
120/120 [=====] - 17s 141ms/step - loss: 43.3833 - reconstruction_error: 21.7055 - regularization_error: 21.6778 - val_loss: 79.7184 - val_reconstruction_error: 60.1039 - val_regularization_error: 19.6145
Epoch 378/1000
120/120 [=====] - 18s 147ms/step - loss: 43.7227 - reconstruction_error: 21.9433 - regularization_error: 21.7794 - val_loss: 79.4795 - val_reconstruction_error: 58.1870 - val_regularization_error: 21.2925
Epoch 379/1000
120/120 [=====] - 18s 151ms/step - loss: 43.7708 - reconstruction_error: 21.9896 - regularization_error: 21.7812 - val_loss: 80.4685 - val_reconstruction_error: 59.3805 - val_regularization_error: 21.0880
Epoch 380/1000
120/120 [=====] - 17s 142ms/step - loss: 43.7203 - reconstruction_error: 21.9274 - regularization_error: 21.7929 - val_loss: 78.4096 - val_reconstruction_error: 58.5479 - val_regularization_error: 19.8616
Epoch 381/1000
120/120 [=====] - ETA: 0s - loss: 43.3973 - reconstruction_error: 21.8159 - regularization_error: 21.5814
[2023-12-01 11:37:25.273149]: Reconstructing images for epoch 381 ...
```



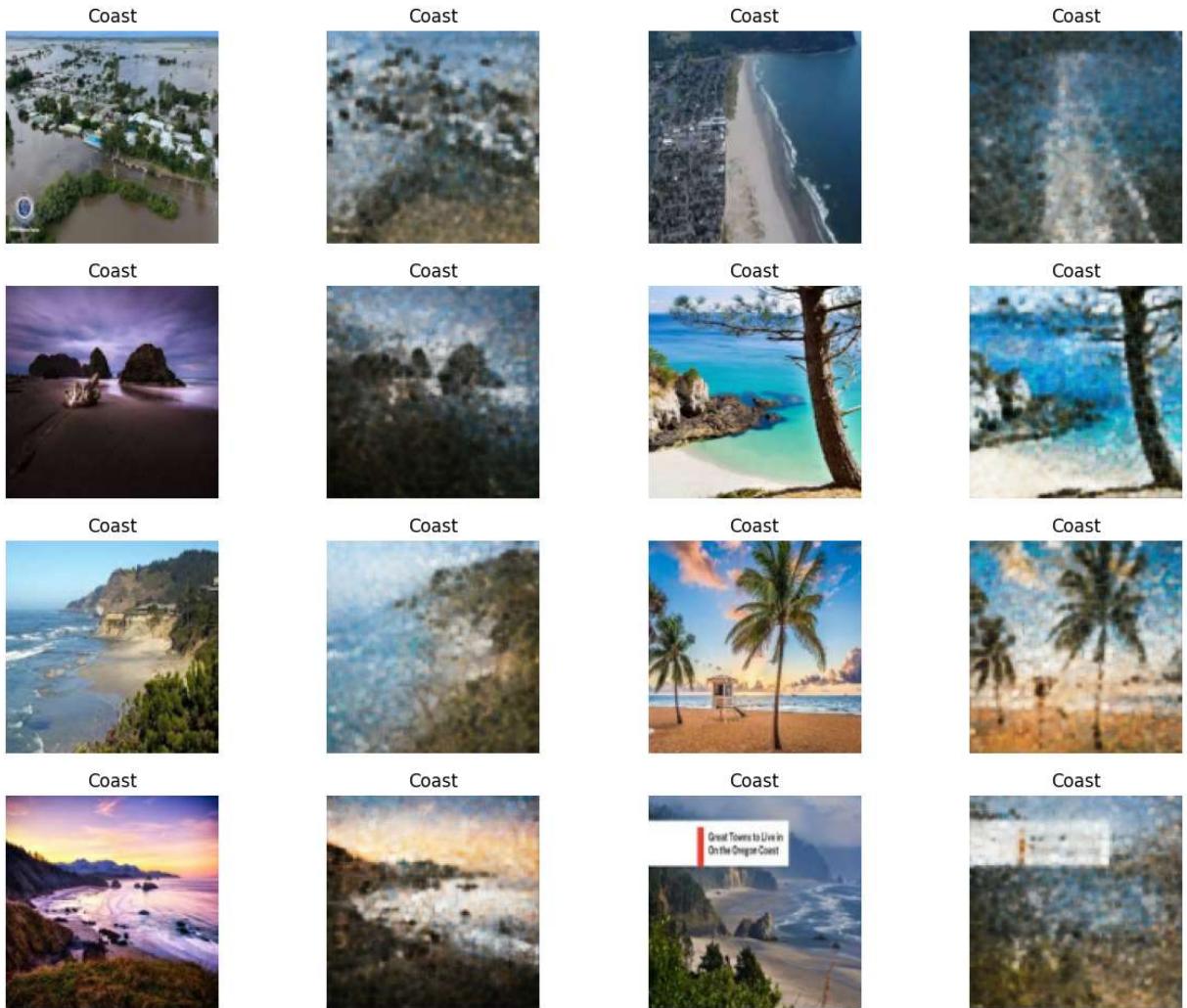
```
120/120 [=====] - 22s 182ms/step - loss: 43.3973 - reconstruction_error: 21.8159 - regularization_error: 21.5814 - val_loss: 79.3273 - val_reconstruction_error: 58.4064 - val_regularization_error: 20.9209
Epoch 382/1000
120/120 [=====] - 16s 135ms/step - loss: 43.5018 - reconstruction_error: 21.7049 - regularization_error: 21.7969 - val_loss: 78.7851 - val_reconstruction_error: 58.9142 - val_regularization_error: 19.8709
Epoch 383/1000
120/120 [=====] - 16s 131ms/step - loss: 43.4706 - reconstruction_error: 21.7234 - regularization_error: 21.7472 - val_loss: 78.7411 - val_reconstruction_error: 59.4526 - val_regularization_error: 19.2885
Epoch 384/1000
120/120 [=====] - 17s 143ms/step - loss: 43.4025 - reconstruction_error: 21.7573 - regularization_error: 21.6452 - val_loss: 79.7400 - val_reconstruction_error: 59.2871 - val_regularization_error: 20.4528
Epoch 385/1000
120/120 [=====] - 16s 129ms/step - loss: 43.3879 - reconstruction_error: 21.6401 - regularization_error: 21.7478 - val_loss: 80.9414 - val_reconstruction_error: 60.3430 - val_regularization_error: 20.5984
Epoch 386/1000
120/120 [=====] - 18s 147ms/step - loss: 43.6169 - reconstruction_error: 21.8567 - regularization_error: 21.7602 - val_loss: 78.4143 - val_reconstruction_error: 58.2607 - val_regularization_error: 20.1536
Epoch 387/1000
120/120 [=====] - 17s 140ms/step - loss: 43.4729 - reconstruction_error: 21.8689 - regularization_error: 21.6039 - val_loss: 79.2519 - val_reconstruction_error: 58.4294 - val_regularization_error: 20.8225
Epoch 388/1000
120/120 [=====] - 17s 140ms/step - loss: 43.4196 - reconstruction_error: 21.7031 - regularization_error: 21.7165 - val_loss: 78.8808 - val_reconstruction_error: 58.4023 - val_regularization_error: 20.4785
Epoch 389/1000
120/120 [=====] - 20s 163ms/step - loss: 43.6742 - reconstruction_error: 21.9606 - regularization_error: 21.7136 - val_loss: 78.3090 - val_reconstruction_error: 59.4664 - val_regularization_error: 18.8426
Epoch 390/1000
120/120 [=====] - 16s 132ms/step - loss: 43.7049 - reconstruction_error: 21.9576 - regularization_error: 21.7473 - val_loss: 80.5500 - val_reconstruction_error: 59.6892 - val_regularization_error: 20.8608
Epoch 391/1000
120/120 [=====] - ETA: 0s - loss: 43.5870 - reconstruction_error: 21.8645 - regularization_error: 21.7226
[2023-12-01 11:40:20.122051]: Reconstructing images for epoch 391 ...
```



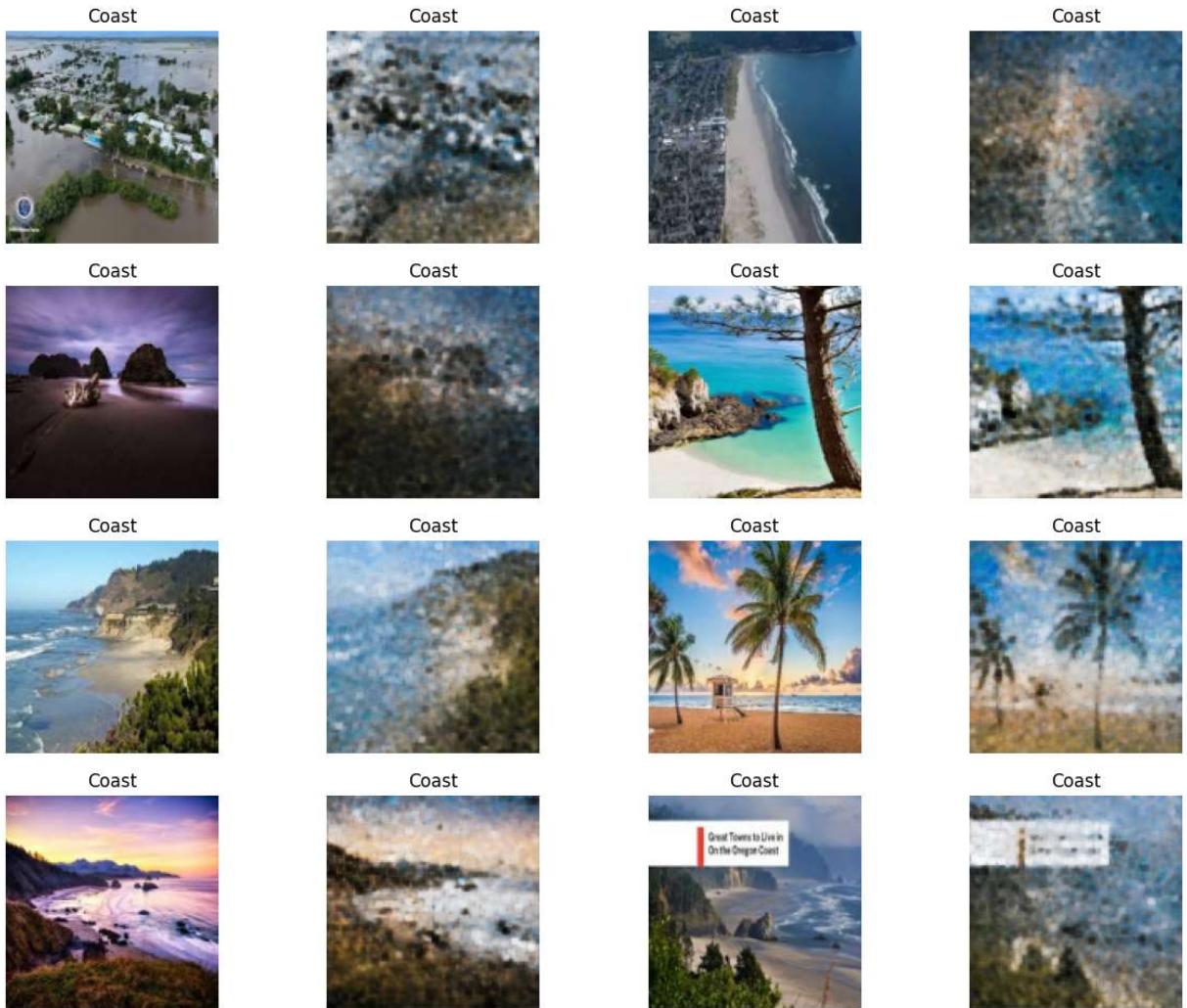
```
120/120 [=====] - 20s 163ms/step - loss: 43.5870 - reconstruction_error: 21.8645 - regularization_error: 21.7226 - val_loss: 79.3549 - val_reconstruction_error: 59.3946 - val_regularization_error: 19.9603
Epoch 392/1000
120/120 [=====] - 16s 133ms/step - loss: 43.5095 - reconstruction_error: 21.6547 - regularization_error: 21.8548 - val_loss: 79.5570 - val_reconstruction_error: 58.5238 - val_regularization_error: 21.0332
Epoch 393/1000
120/120 [=====] - 18s 153ms/step - loss: 43.1576 - reconstruction_error: 21.4992 - regularization_error: 21.6584 - val_loss: 80.5420 - val_reconstruction_error: 59.5642 - val_regularization_error: 20.9778
Epoch 394/1000
120/120 [=====] - 16s 130ms/step - loss: 43.1340 - reconstruction_error: 21.5248 - regularization_error: 21.6092 - val_loss: 81.1569 - val_reconstruction_error: 59.8680 - val_regularization_error: 21.2889
Epoch 395/1000
120/120 [=====] - 13s 110ms/step - loss: 43.6895 - reconstruction_error: 21.8276 - regularization_error: 21.8618 - val_loss: 78.7266 - val_reconstruction_error: 59.0573 - val_regularization_error: 19.6693
Epoch 396/1000
120/120 [=====] - 16s 129ms/step - loss: 43.4762 - reconstruction_error: 21.6523 - regularization_error: 21.8239 - val_loss: 79.9464 - val_reconstruction_error: 59.6274 - val_regularization_error: 20.3189
Epoch 397/1000
120/120 [=====] - 17s 143ms/step - loss: 43.0818 - reconstruction_error: 21.4456 - regularization_error: 21.6363 - val_loss: 79.3373 - val_reconstruction_error: 59.4360 - val_regularization_error: 19.9013
Epoch 398/1000
120/120 [=====] - 17s 138ms/step - loss: 43.3600 - reconstruction_error: 21.5190 - regularization_error: 21.8410 - val_loss: 80.2708 - val_reconstruction_error: 58.8423 - val_regularization_error: 21.4285
Epoch 399/1000
120/120 [=====] - 20s 166ms/step - loss: 43.0676 - reconstruction_error: 21.4018 - regularization_error: 21.6658 - val_loss: 79.7547 - val_reconstruction_error: 58.3669 - val_regularization_error: 21.3879
Epoch 400/1000
120/120 [=====] - 16s 131ms/step - loss: 43.1457 - reconstruction_error: 21.5268 - regularization_error: 21.6189 - val_loss: 79.0159 - val_reconstruction_error: 59.0040 - val_regularization_error: 20.0119
Epoch 401/1000
120/120 [=====] - ETA: 0s - loss: 43.4841 - reconstruction_error: 21.7043 - regularization_error: 21.7798
[2023-12-01 11:43:10.229492]: Reconstructing images for epoch 401 ...
```



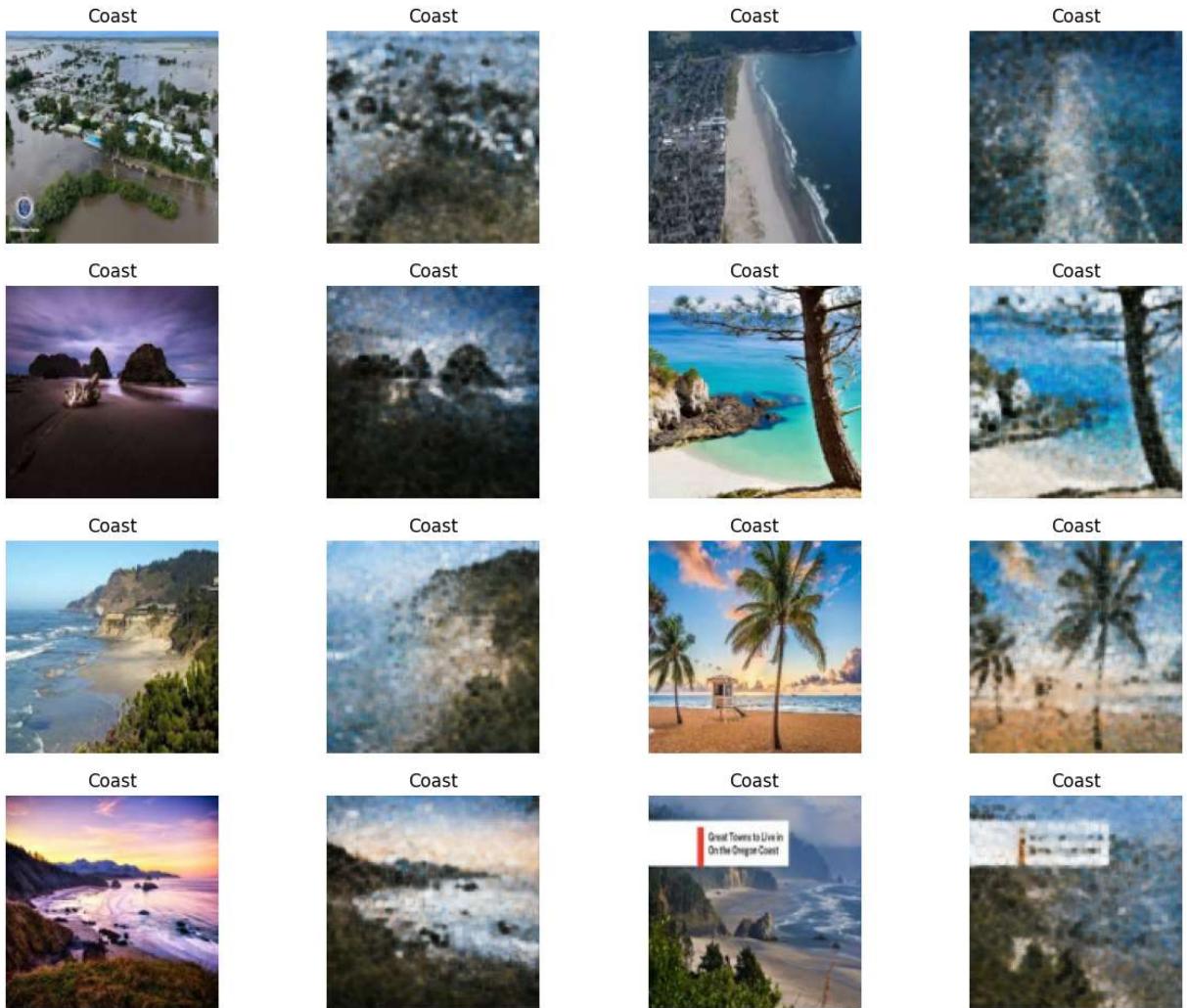
```
120/120 [=====] - 20s 166ms/step - loss: 43.4841 - reconstruction_error: 21.7043 - regularization_error: 21.7798 - val_loss: 80.7486 - val_reconstruction_error: 59.7019 - val_regularization_error: 21.0468
Epoch 402/1000
120/120 [=====] - 15s 127ms/step - loss: 43.2459 - reconstruction_error: 21.4654 - regularization_error: 21.7805 - val_loss: 78.8115 - val_reconstruction_error: 59.8134 - val_regularization_error: 18.9981
Epoch 403/1000
120/120 [=====] - 20s 170ms/step - loss: 43.1787 - reconstruction_error: 21.5038 - regularization_error: 21.6749 - val_loss: 79.1572 - val_reconstruction_error: 59.5175 - val_regularization_error: 19.6397
Epoch 404/1000
120/120 [=====] - 16s 133ms/step - loss: 43.2285 - reconstruction_error: 21.4530 - regularization_error: 21.7754 - val_loss: 79.4399 - val_reconstruction_error: 59.0655 - val_regularization_error: 20.3744
Epoch 405/1000
120/120 [=====] - 18s 145ms/step - loss: 43.3162 - reconstruction_error: 21.6669 - regularization_error: 21.6493 - val_loss: 79.3272 - val_reconstruction_error: 59.7841 - val_regularization_error: 19.5431
Epoch 406/1000
120/120 [=====] - 19s 157ms/step - loss: 43.1738 - reconstruction_error: 21.3660 - regularization_error: 21.8078 - val_loss: 78.3008 - val_reconstruction_error: 59.6069 - val_regularization_error: 18.6939
Epoch 407/1000
120/120 [=====] - 18s 150ms/step - loss: 43.1495 - reconstruction_error: 21.5007 - regularization_error: 21.6487 - val_loss: 79.9358 - val_reconstruction_error: 59.0689 - val_regularization_error: 20.8669
Epoch 408/1000
120/120 [=====] - 19s 155ms/step - loss: 43.4158 - reconstruction_error: 21.5888 - regularization_error: 21.8270 - val_loss: 80.5802 - val_reconstruction_error: 59.7760 - val_regularization_error: 20.8043
Epoch 409/1000
120/120 [=====] - 18s 147ms/step - loss: 43.0910 - reconstruction_error: 21.3178 - regularization_error: 21.7732 - val_loss: 81.2168 - val_reconstruction_error: 59.7740 - val_regularization_error: 21.4428
Epoch 410/1000
120/120 [=====] - 17s 137ms/step - loss: 43.0560 - reconstruction_error: 21.3664 - regularization_error: 21.6896 - val_loss: 79.4405 - val_reconstruction_error: 60.1824 - val_regularization_error: 19.2581
Epoch 411/1000
120/120 [=====] - ETA: 0s - loss: 43.0366 - reconstruction_error: 21.4100 - regularization_error: 21.6266
[2023-12-01 11:46:11.481259]: Reconstructing images for epoch 411 ...
```



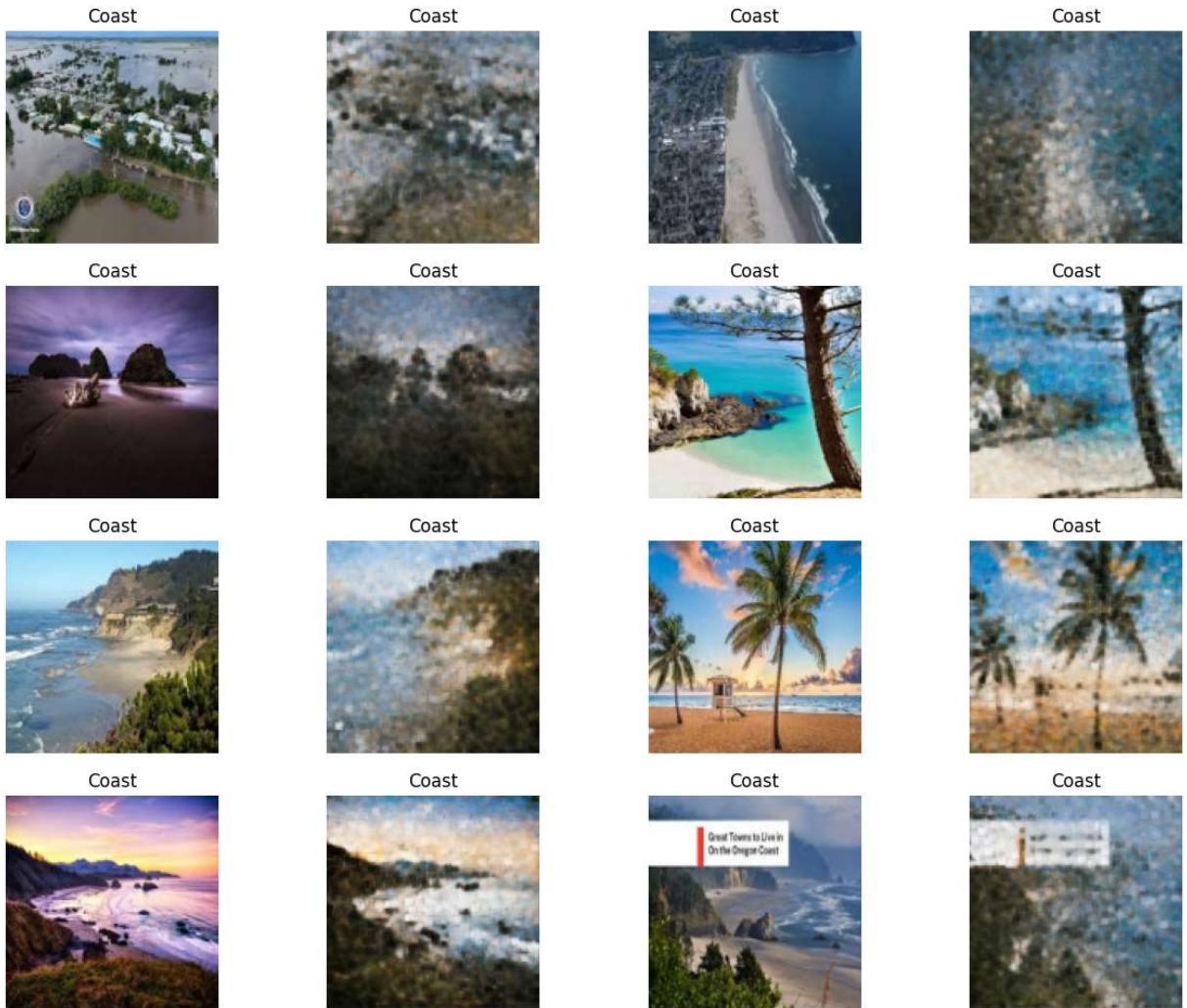
```
120/120 [=====] - 19s 157ms/step - loss: 43.0366 - reconstruction_error: 21.4100 - regularization_error: 21.6266 - val_loss: 79.3674 - val_reconstruction_error: 58.6810 - val_regularization_error: 20.6863
Epoch 412/1000
120/120 [=====] - 16s 133ms/step - loss: 43.3918 - reconstruction_error: 21.6431 - regularization_error: 21.7488 - val_loss: 79.5591 - val_reconstruction_error: 58.9457 - val_regularization_error: 20.6134
Epoch 413/1000
120/120 [=====] - 17s 143ms/step - loss: 43.1459 - reconstruction_error: 21.4477 - regularization_error: 21.6982 - val_loss: 80.0328 - val_reconstruction_error: 58.8951 - val_regularization_error: 21.1377
Epoch 414/1000
120/120 [=====] - 16s 130ms/step - loss: 42.9872 - reconstruction_error: 21.3057 - regularization_error: 21.6815 - val_loss: 79.0037 - val_reconstruction_error: 59.1542 - val_regularization_error: 19.8496
Epoch 415/1000
120/120 [=====] - 17s 143ms/step - loss: 43.1380 - reconstruction_error: 21.4892 - regularization_error: 21.6488 - val_loss: 80.1726 - val_reconstruction_error: 58.7860 - val_regularization_error: 21.3865
Epoch 416/1000
120/120 [=====] - 21s 169ms/step - loss: 42.9512 - reconstruction_error: 21.1604 - regularization_error: 21.7908 - val_loss: 80.5740 - val_reconstruction_error: 59.5092 - val_regularization_error: 21.0648
Epoch 417/1000
120/120 [=====] - 15s 122ms/step - loss: 43.0576 - reconstruction_error: 21.3083 - regularization_error: 21.7493 - val_loss: 81.0657 - val_reconstruction_error: 59.5501 - val_regularization_error: 21.5156
Epoch 418/1000
120/120 [=====] - 18s 150ms/step - loss: 43.1015 - reconstruction_error: 21.2989 - regularization_error: 21.8025 - val_loss: 80.1819 - val_reconstruction_error: 59.4321 - val_regularization_error: 20.7498
Epoch 419/1000
120/120 [=====] - 15s 127ms/step - loss: 42.8998 - reconstruction_error: 21.2124 - regularization_error: 21.6874 - val_loss: 80.0484 - val_reconstruction_error: 59.9159 - val_regularization_error: 20.1325
Epoch 420/1000
120/120 [=====] - 19s 154ms/step - loss: 43.1103 - reconstruction_error: 21.3825 - regularization_error: 21.7277 - val_loss: 80.2039 - val_reconstruction_error: 59.9715 - val_regularization_error: 20.2324
Epoch 421/1000
120/120 [=====] - ETA: 0s - loss: 42.9257 - reconstruction_error: 21.2245 - regularization_error: 21.7012
[2023-12-01 11:49:07.716138]: Reconstructing images for epoch 421 ...
```



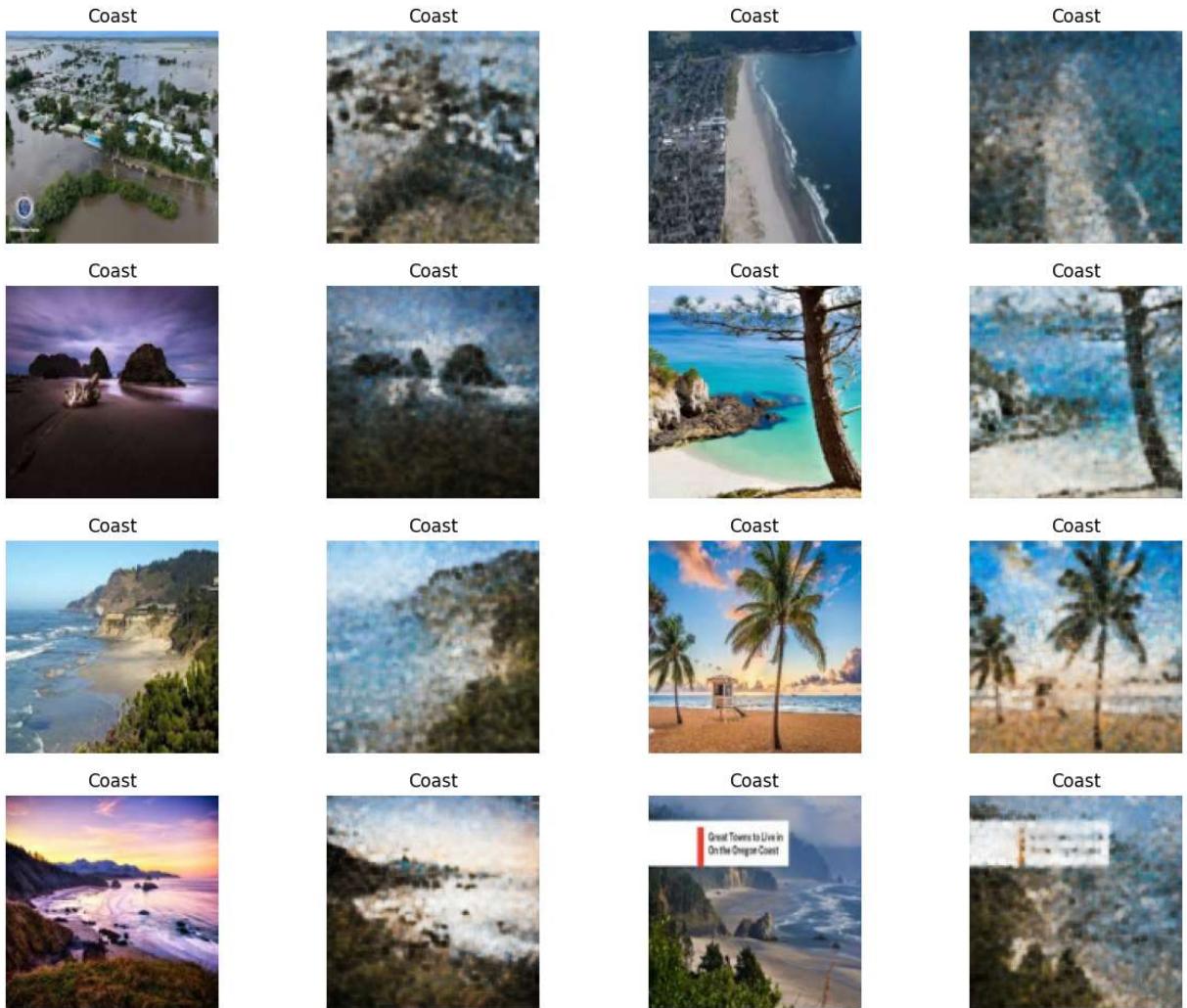
```
120/120 [=====] - 20s 167ms/step - loss: 42.9257 - reconstruction_error: 21.2245 - regularization_error: 21.7012 - val_loss: 81.1616 - val_reconstruction_error: 60.8599 - val_regularization_error: 20.3017
Epoch 422/1000
120/120 [=====] - 16s 136ms/step - loss: 42.8681 - reconstruction_error: 21.2586 - regularization_error: 21.6094 - val_loss: 79.0937 - val_reconstruction_error: 58.7787 - val_regularization_error: 20.3149
Epoch 423/1000
120/120 [=====] - 17s 142ms/step - loss: 42.8899 - reconstruction_error: 21.1506 - regularization_error: 21.7392 - val_loss: 79.0508 - val_reconstruction_error: 58.9155 - val_regularization_error: 20.1353
Epoch 424/1000
120/120 [=====] - 19s 152ms/step - loss: 42.8518 - reconstruction_error: 21.2025 - regularization_error: 21.6492 - val_loss: 79.7210 - val_reconstruction_error: 59.0051 - val_regularization_error: 20.7158
Epoch 425/1000
120/120 [=====] - 16s 130ms/step - loss: 42.8934 - reconstruction_error: 21.2915 - regularization_error: 21.6019 - val_loss: 80.0744 - val_reconstruction_error: 59.7721 - val_regularization_error: 20.3023
Epoch 426/1000
120/120 [=====] - 16s 134ms/step - loss: 42.9138 - reconstruction_error: 21.2800 - regularization_error: 21.6338 - val_loss: 78.8430 - val_reconstruction_error: 59.4331 - val_regularization_error: 19.4098
Epoch 427/1000
120/120 [=====] - 14s 111ms/step - loss: 42.9206 - reconstruction_error: 21.1684 - regularization_error: 21.7522 - val_loss: 80.2587 - val_reconstruction_error: 59.9624 - val_regularization_error: 20.2963
Epoch 428/1000
120/120 [=====] - 17s 136ms/step - loss: 42.7927 - reconstruction_error: 21.1331 - regularization_error: 21.6595 - val_loss: 79.2479 - val_reconstruction_error: 58.7387 - val_regularization_error: 20.5093
Epoch 429/1000
120/120 [=====] - 20s 170ms/step - loss: 42.7211 - reconstruction_error: 21.1512 - regularization_error: 21.5698 - val_loss: 79.3745 - val_reconstruction_error: 59.5969 - val_regularization_error: 19.7776
Epoch 430/1000
120/120 [=====] - 20s 161ms/step - loss: 42.7544 - reconstruction_error: 20.9788 - regularization_error: 21.7756 - val_loss: 81.2453 - val_reconstruction_error: 59.9402 - val_regularization_error: 21.3051
Epoch 431/1000
120/120 [=====] - ETA: 0s - loss: 42.9232 - reconstruction_error: 21.1346 - regularization_error: 21.7886
[2023-12-01 11:52:04.519978]: Reconstructing images for epoch 431 ...
```



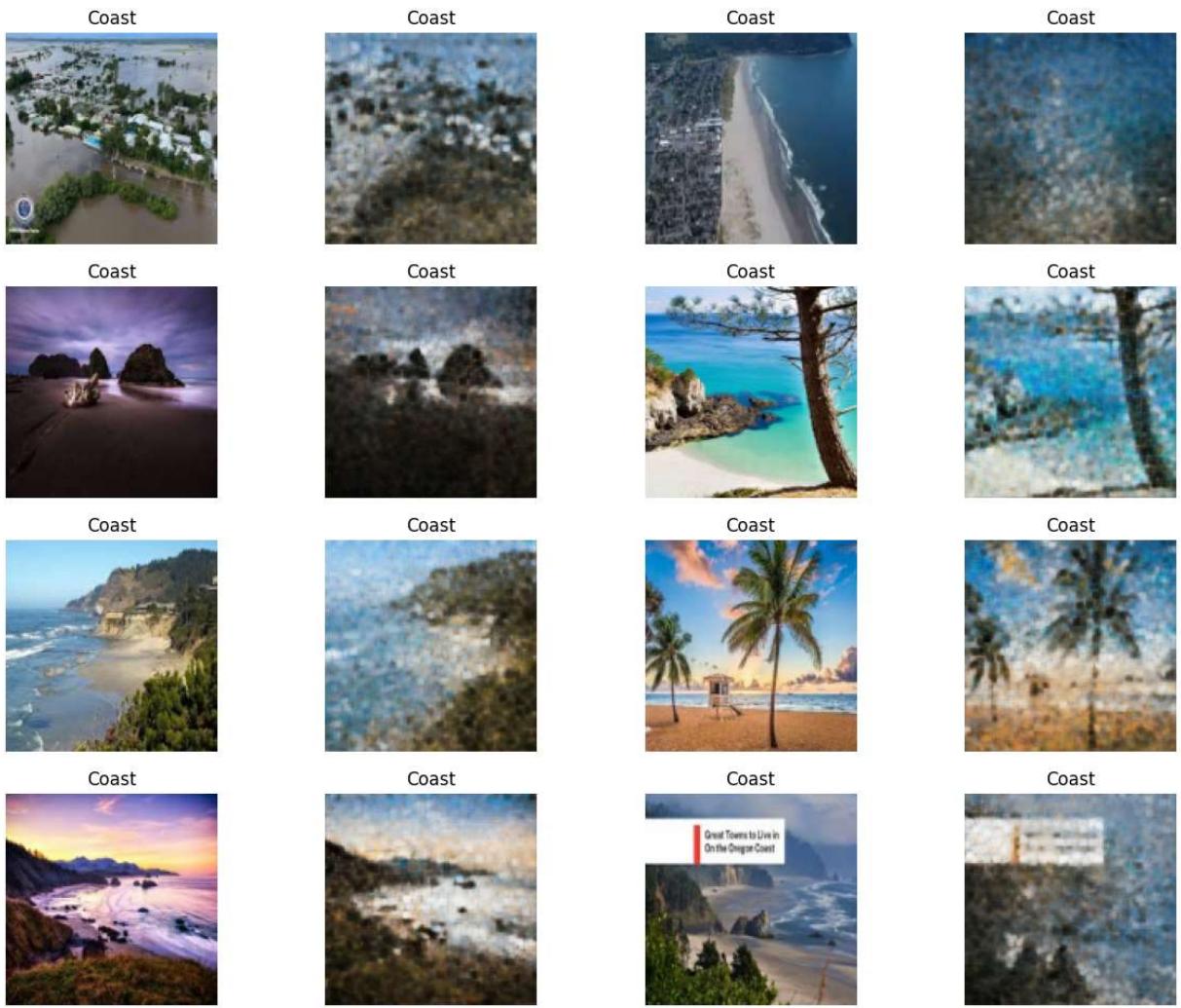
```
120/120 [=====] - 22s 182ms/step - loss: 42.9232 - reconstruction_error: 21.1346 - regularization_error: 21.7886 - val_loss: 82.0548 - val_reconstruction_error: 60.0447 - val_regularization_error: 22.0100
Epoch 432/1000
120/120 [=====] - 16s 132ms/step - loss: 43.1111 - reconstruction_error: 21.3386 - regularization_error: 21.7725 - val_loss: 79.6531 - val_reconstruction_error: 58.6471 - val_regularization_error: 21.0060
Epoch 433/1000
120/120 [=====] - 19s 157ms/step - loss: 42.8903 - reconstruction_error: 21.2261 - regularization_error: 21.6641 - val_loss: 80.9870 - val_reconstruction_error: 60.7714 - val_regularization_error: 20.2156
Epoch 434/1000
120/120 [=====] - 17s 137ms/step - loss: 42.8003 - reconstruction_error: 21.0392 - regularization_error: 21.7611 - val_loss: 80.1290 - val_reconstruction_error: 59.7750 - val_regularization_error: 20.3540
Epoch 435/1000
120/120 [=====] - 16s 133ms/step - loss: 43.0449 - reconstruction_error: 21.1834 - regularization_error: 21.8616 - val_loss: 80.3526 - val_reconstruction_error: 59.5752 - val_regularization_error: 20.7774
Epoch 436/1000
120/120 [=====] - 17s 145ms/step - loss: 42.5509 - reconstruction_error: 21.0330 - regularization_error: 21.5179 - val_loss: 79.1635 - val_reconstruction_error: 59.7115 - val_regularization_error: 19.4520
Epoch 437/1000
120/120 [=====] - 19s 159ms/step - loss: 42.6265 - reconstruction_error: 21.0226 - regularization_error: 21.6040 - val_loss: 80.8250 - val_reconstruction_error: 60.1514 - val_regularization_error: 20.6736
Epoch 438/1000
120/120 [=====] - 16s 136ms/step - loss: 42.5908 - reconstruction_error: 20.8788 - regularization_error: 21.7119 - val_loss: 78.8959 - val_reconstruction_error: 59.9306 - val_regularization_error: 18.9653
Epoch 439/1000
120/120 [=====] - 18s 148ms/step - loss: 42.5275 - reconstruction_error: 21.0124 - regularization_error: 21.5151 - val_loss: 79.5752 - val_reconstruction_error: 59.5485 - val_regularization_error: 20.0267
Epoch 440/1000
120/120 [=====] - 16s 135ms/step - loss: 42.8442 - reconstruction_error: 21.0172 - regularization_error: 21.8270 - val_loss: 79.7698 - val_reconstruction_error: 60.1880 - val_regularization_error: 19.5818
Epoch 441/1000
120/120 [=====] - ETA: 0s - loss: 42.6221 - reconstruction_error: 20.9344 - regularization_error: 21.6877
[2023-12-01 11:55:02.449944]: Reconstructing images for epoch 441 ...
```



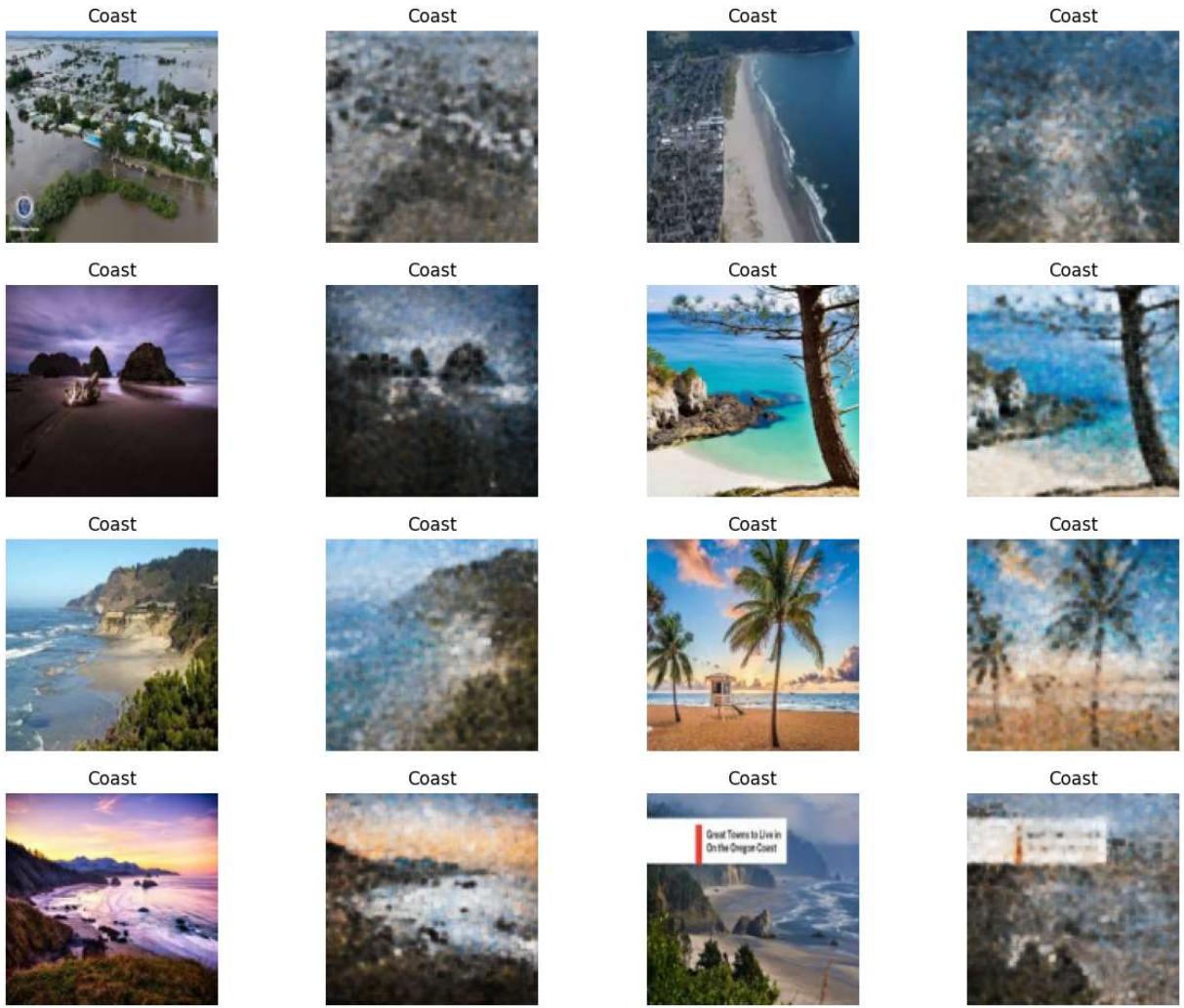
```
120/120 [=====] - 21s 171ms/step - loss: 42.6221 - reconstruction_error: 20.9344 - regularization_error: 21.6877 - val_loss: 79.6328 - val_reconstruction_error: 59.4305 - val_regularization_error: 20.2023
Epoch 442/1000
120/120 [=====] - 16s 130ms/step - loss: 42.5197 - reconstruction_error: 20.9517 - regularization_error: 21.5680 - val_loss: 79.1955 - val_reconstruction_error: 59.6993 - val_regularization_error: 19.4962
Epoch 443/1000
120/120 [=====] - 17s 143ms/step - loss: 42.4740 - reconstruction_error: 20.8541 - regularization_error: 21.6199 - val_loss: 79.0188 - val_reconstruction_error: 59.1764 - val_regularization_error: 19.8424
Epoch 444/1000
120/120 [=====] - 20s 165ms/step - loss: 42.8105 - reconstruction_error: 20.9566 - regularization_error: 21.8539 - val_loss: 79.7993 - val_reconstruction_error: 59.7412 - val_regularization_error: 20.0581
Epoch 445/1000
120/120 [=====] - 16s 135ms/step - loss: 42.5561 - reconstruction_error: 20.8298 - regularization_error: 21.7263 - val_loss: 80.1184 - val_reconstruction_error: 59.1779 - val_regularization_error: 20.9405
Epoch 446/1000
120/120 [=====] - 17s 140ms/step - loss: 42.4395 - reconstruction_error: 20.7864 - regularization_error: 21.6531 - val_loss: 80.0675 - val_reconstruction_error: 59.7141 - val_regularization_error: 20.3534
Epoch 447/1000
120/120 [=====] - 17s 138ms/step - loss: 42.5010 - reconstruction_error: 20.7662 - regularization_error: 21.7349 - val_loss: 80.1765 - val_reconstruction_error: 59.1909 - val_regularization_error: 20.9855
Epoch 448/1000
120/120 [=====] - 17s 142ms/step - loss: 42.6036 - reconstruction_error: 20.8906 - regularization_error: 21.7130 - val_loss: 78.6303 - val_reconstruction_error: 58.3247 - val_regularization_error: 20.3057
Epoch 449/1000
120/120 [=====] - 16s 131ms/step - loss: 42.4825 - reconstruction_error: 20.8663 - regularization_error: 21.6161 - val_loss: 80.6637 - val_reconstruction_error: 60.1241 - val_regularization_error: 20.5396
Epoch 450/1000
120/120 [=====] - 18s 153ms/step - loss: 42.6212 - reconstruction_error: 20.8720 - regularization_error: 21.7492 - val_loss: 79.2126 - val_reconstruction_error: 60.1131 - val_regularization_error: 19.0995
Epoch 451/1000
120/120 [=====] - ETA: 0s - loss: 42.4200 - reconstruction_error: 20.7954 - regularization_error: 21.6246
[2023-12-01 11:58:03.109212]: Reconstructing images for epoch 451 ...
```



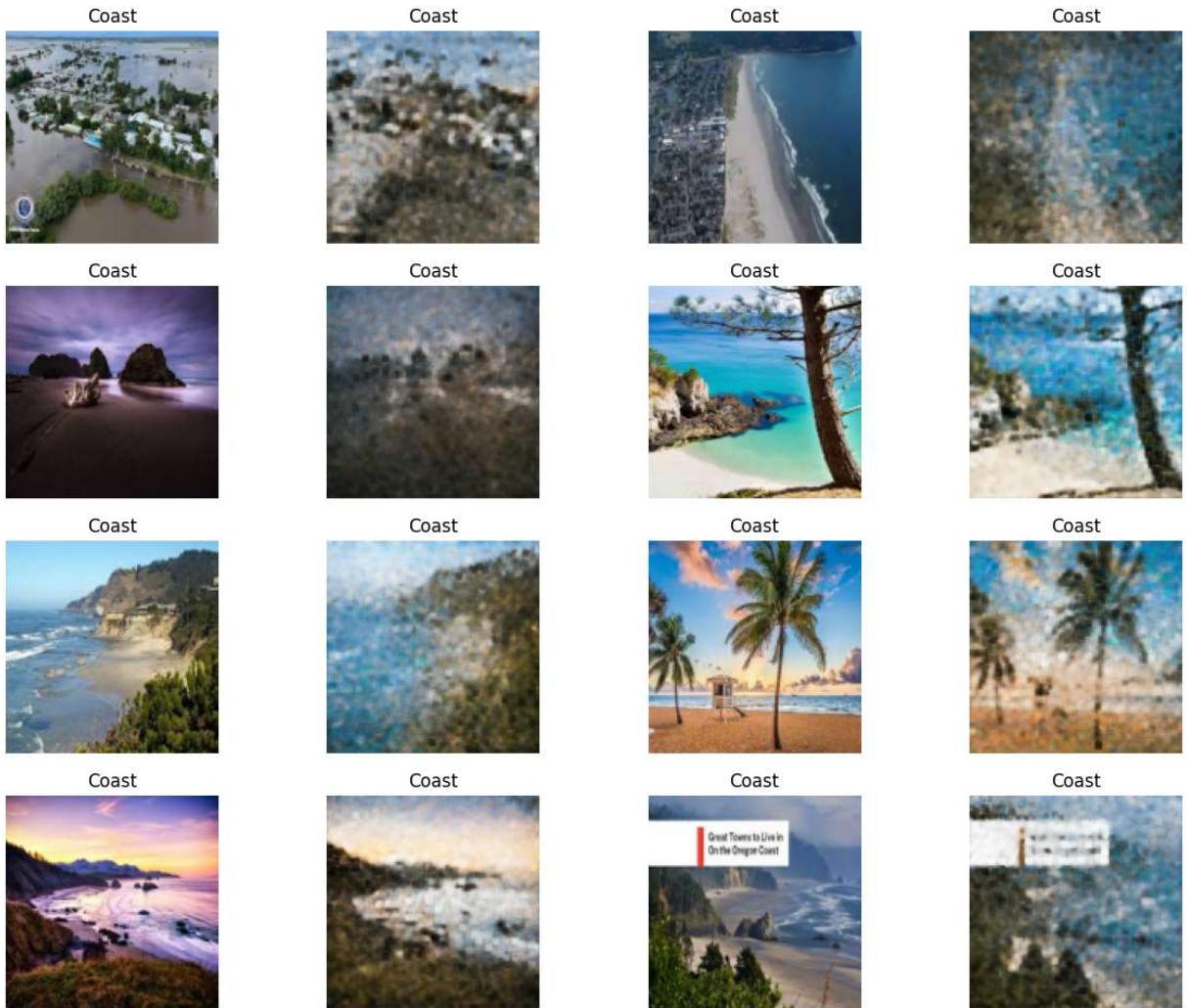
```
120/120 [=====] - 23s 193ms/step - loss: 42.4200 - reconstruction_error: 20.7954 - regularization_error: 21.6246 - val_loss: 80.0471 - val_reconstruction_error: 60.1294 - val_regularization_error: 19.9177
Epoch 452/1000
120/120 [=====] - 15s 128ms/step - loss: 42.1864 - reconstruction_error: 20.7204 - regularization_error: 21.4661 - val_loss: 81.0714 - val_reconstruction_error: 59.8643 - val_regularization_error: 21.2071
Epoch 453/1000
120/120 [=====] - 18s 151ms/step - loss: 42.5712 - reconstruction_error: 20.9609 - regularization_error: 21.6103 - val_loss: 82.4297 - val_reconstruction_error: 62.2873 - val_regularization_error: 20.1423
Epoch 454/1000
120/120 [=====] - 14s 114ms/step - loss: 42.6589 - reconstruction_error: 20.9637 - regularization_error: 21.6951 - val_loss: 79.4815 - val_reconstruction_error: 59.0802 - val_regularization_error: 20.4013
Epoch 455/1000
120/120 [=====] - 17s 145ms/step - loss: 42.4689 - reconstruction_error: 20.8111 - regularization_error: 21.6578 - val_loss: 79.7699 - val_reconstruction_error: 59.8306 - val_regularization_error: 19.9392
Epoch 456/1000
120/120 [=====] - 16s 133ms/step - loss: 42.6550 - reconstruction_error: 20.9889 - regularization_error: 21.6661 - val_loss: 83.3631 - val_reconstruction_error: 60.9698 - val_regularization_error: 22.3933
Epoch 457/1000
120/120 [=====] - 18s 147ms/step - loss: 42.5874 - reconstruction_error: 20.9035 - regularization_error: 21.6839 - val_loss: 81.3828 - val_reconstruction_error: 59.9157 - val_regularization_error: 21.4672
Epoch 458/1000
120/120 [=====] - 14s 113ms/step - loss: 42.3552 - reconstruction_error: 20.7380 - regularization_error: 21.6172 - val_loss: 82.6577 - val_reconstruction_error: 62.0360 - val_regularization_error: 20.6218
Epoch 459/1000
120/120 [=====] - 18s 148ms/step - loss: 42.3770 - reconstruction_error: 20.7683 - regularization_error: 21.6087 - val_loss: 80.6672 - val_reconstruction_error: 59.8554 - val_regularization_error: 20.8118
Epoch 460/1000
120/120 [=====] - 17s 144ms/step - loss: 42.3028 - reconstruction_error: 20.7457 - regularization_error: 21.5571 - val_loss: 80.3129 - val_reconstruction_error: 60.0657 - val_regularization_error: 20.2472
Epoch 461/1000
120/120 [=====] - ETA: 0s - loss: 42.3084 - reconstruction_error: 20.7275 - regularization_error: 21.5809
[2023-12-01 12:00:52.949779]: Reconstructing images for epoch 461 ...
```



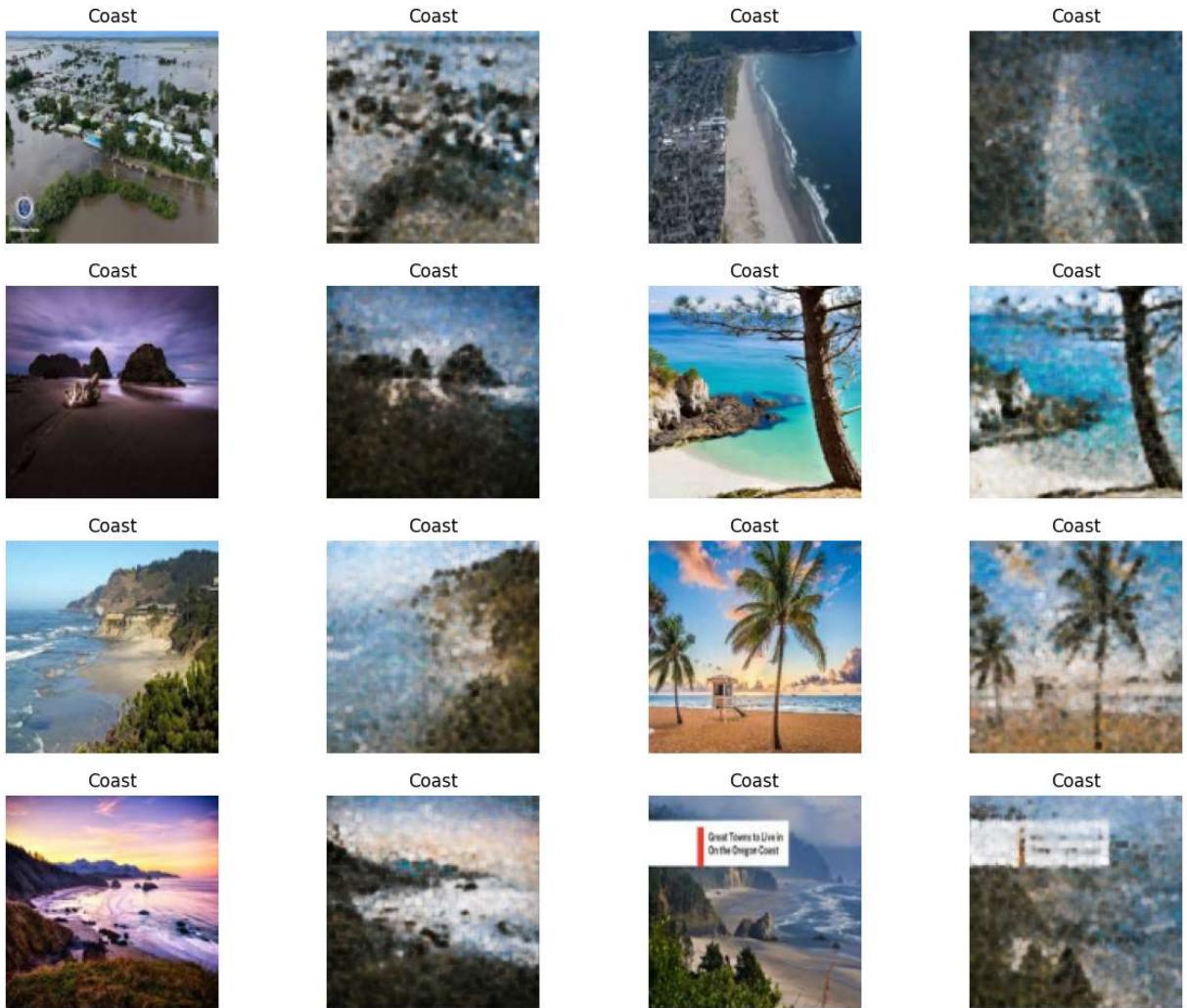
```
120/120 [=====] - 21s 174ms/step - loss: 42.3084 - reconstruction_error: 20.7275 - regularization_error: 21.5809 - val_loss: 79.3451 - val_reconstruction_error: 59.3781 - val_regularization_error: 19.9670
Epoch 462/1000
120/120 [=====] - 17s 142ms/step - loss: 42.4328 - reconstruction_error: 20.7884 - regularization_error: 21.6443 - val_loss: 80.5823 - val_reconstruction_error: 59.7840 - val_regularization_error: 20.7983
Epoch 463/1000
120/120 [=====] - 16s 135ms/step - loss: 42.1624 - reconstruction_error: 20.6059 - regularization_error: 21.5566 - val_loss: 80.4517 - val_reconstruction_error: 59.9492 - val_regularization_error: 20.5025
Epoch 464/1000
120/120 [=====] - 18s 146ms/step - loss: 42.3356 - reconstruction_error: 20.6550 - regularization_error: 21.6805 - val_loss: 79.8898 - val_reconstruction_error: 59.5826 - val_regularization_error: 20.3072
Epoch 465/1000
120/120 [=====] - 18s 147ms/step - loss: 42.1992 - reconstruction_error: 20.5374 - regularization_error: 21.6619 - val_loss: 79.5642 - val_reconstruction_error: 60.0657 - val_regularization_error: 19.4984
Epoch 466/1000
120/120 [=====] - 17s 137ms/step - loss: 42.3777 - reconstruction_error: 20.8385 - regularization_error: 21.5391 - val_loss: 81.3160 - val_reconstruction_error: 59.8911 - val_regularization_error: 21.4249
Epoch 467/1000
120/120 [=====] - 18s 145ms/step - loss: 42.5081 - reconstruction_error: 20.8106 - regularization_error: 21.6975 - val_loss: 80.1377 - val_reconstruction_error: 60.0919 - val_regularization_error: 20.0457
Epoch 468/1000
120/120 [=====] - 18s 148ms/step - loss: 42.3132 - reconstruction_error: 20.6084 - regularization_error: 21.7048 - val_loss: 81.0075 - val_reconstruction_error: 59.0557 - val_regularization_error: 21.9518
Epoch 469/1000
120/120 [=====] - 17s 137ms/step - loss: 42.2644 - reconstruction_error: 20.6431 - regularization_error: 21.6213 - val_loss: 80.3720 - val_reconstruction_error: 61.1397 - val_regularization_error: 19.2323
Epoch 470/1000
120/120 [=====] - 17s 141ms/step - loss: 42.2545 - reconstruction_error: 20.5750 - regularization_error: 21.6796 - val_loss: 80.6235 - val_reconstruction_error: 60.1013 - val_regularization_error: 20.5222
Epoch 471/1000
120/120 [=====] - ETA: 0s - loss: 42.1644 - reconstruction_error: 20.4502 - regularization_error: 21.7142
[2023-12-01 12:03:51.549348]: Reconstructing images for epoch 471 ...
```



```
120/120 [=====] - 20s 166ms/step - loss: 42.1644 - reconstruction_error: 20.4502 - regularization_error: 21.7142 - val_loss: 79.4927 - val_reconstruction_error: 59.7347 - val_regularization_error: 19.7581
Epoch 472/1000
120/120 [=====] - 16s 133ms/step - loss: 42.3562 - reconstruction_error: 20.6777 - regularization_error: 21.6785 - val_loss: 80.0387 - val_reconstruction_error: 60.4963 - val_regularization_error: 19.5424
Epoch 473/1000
120/120 [=====] - 18s 149ms/step - loss: 42.3010 - reconstruction_error: 20.7261 - regularization_error: 21.5749 - val_loss: 79.7901 - val_reconstruction_error: 60.3583 - val_regularization_error: 19.4318
Epoch 474/1000
120/120 [=====] - 20s 165ms/step - loss: 42.1182 - reconstruction_error: 20.4274 - regularization_error: 21.6908 - val_loss: 79.2084 - val_reconstruction_error: 59.9484 - val_regularization_error: 19.2600
Epoch 475/1000
120/120 [=====] - 18s 152ms/step - loss: 42.1725 - reconstruction_error: 20.5199 - regularization_error: 21.6526 - val_loss: 79.1262 - val_reconstruction_error: 58.4638 - val_regularization_error: 20.6625
Epoch 476/1000
120/120 [=====] - 15s 128ms/step - loss: 42.1775 - reconstruction_error: 20.5676 - regularization_error: 21.6099 - val_loss: 80.3249 - val_reconstruction_error: 60.9599 - val_regularization_error: 19.3650
Epoch 477/1000
120/120 [=====] - 18s 147ms/step - loss: 42.3125 - reconstruction_error: 20.6692 - regularization_error: 21.6432 - val_loss: 80.1912 - val_reconstruction_error: 59.8528 - val_regularization_error: 20.3384
Epoch 478/1000
120/120 [=====] - 19s 156ms/step - loss: 41.8954 - reconstruction_error: 20.3548 - regularization_error: 21.5406 - val_loss: 80.3679 - val_reconstruction_error: 60.2850 - val_regularization_error: 20.0829
Epoch 479/1000
120/120 [=====] - 15s 123ms/step - loss: 42.1350 - reconstruction_error: 20.5554 - regularization_error: 21.5796 - val_loss: 79.8727 - val_reconstruction_error: 60.3365 - val_regularization_error: 19.5361
Epoch 480/1000
120/120 [=====] - 18s 150ms/step - loss: 42.1539 - reconstruction_error: 20.4445 - regularization_error: 21.7094 - val_loss: 79.6371 - val_reconstruction_error: 59.5154 - val_regularization_error: 20.1218
Epoch 481/1000
120/120 [=====] - ETA: 0s - loss: 42.0977 - reconstruction_error: 20.4692 - regularization_error: 21.6284
[2023-12-01 12:06:52.200412]: Reconstructing images for epoch 481 ...
```



```
120/120 [=====] - 22s 182ms/step - loss: 42.0977 - reconstruction_error: 20.4692 - regularization_error: 21.6284 - val_loss: 80.6999 - val_reconstruction_error: 60.5160 - val_regularization_error: 20.1839
Epoch 482/1000
120/120 [=====] - 16s 133ms/step - loss: 42.1217 - reconstruction_error: 20.4463 - regularization_error: 21.6754 - val_loss: 80.2494 - val_reconstruction_error: 59.9369 - val_regularization_error: 20.3125
Epoch 483/1000
120/120 [=====] - 18s 150ms/step - loss: 42.0489 - reconstruction_error: 20.3823 - regularization_error: 21.6666 - val_loss: 80.1734 - val_reconstruction_error: 61.2660 - val_regularization_error: 18.9074
Epoch 484/1000
120/120 [=====] - 18s 148ms/step - loss: 42.2948 - reconstruction_error: 20.5059 - regularization_error: 21.7889 - val_loss: 81.4357 - val_reconstruction_error: 60.6419 - val_regularization_error: 20.7938
Epoch 485/1000
120/120 [=====] - 17s 144ms/step - loss: 42.2251 - reconstruction_error: 20.5218 - regularization_error: 21.7033 - val_loss: 80.1902 - val_reconstruction_error: 59.5383 - val_regularization_error: 20.6518
Epoch 486/1000
120/120 [=====] - 13s 108ms/step - loss: 42.0259 - reconstruction_error: 20.4222 - regularization_error: 21.6037 - val_loss: 81.5309 - val_reconstruction_error: 59.6593 - val_regularization_error: 21.8716
Epoch 487/1000
120/120 [=====] - 18s 146ms/step - loss: 42.2184 - reconstruction_error: 20.5590 - regularization_error: 21.6594 - val_loss: 80.3226 - val_reconstruction_error: 60.0069 - val_regularization_error: 20.3157
Epoch 488/1000
120/120 [=====] - 17s 141ms/step - loss: 41.9658 - reconstruction_error: 20.5193 - regularization_error: 21.4465 - val_loss: 80.5493 - val_reconstruction_error: 60.5569 - val_regularization_error: 19.9924
Epoch 489/1000
120/120 [=====] - 16s 133ms/step - loss: 42.0028 - reconstruction_error: 20.4251 - regularization_error: 21.5777 - val_loss: 80.0631 - val_reconstruction_error: 60.4942 - val_regularization_error: 19.5690
Epoch 490/1000
120/120 [=====] - 18s 148ms/step - loss: 41.7936 - reconstruction_error: 20.3885 - regularization_error: 21.4051 - val_loss: 81.3077 - val_reconstruction_error: 59.6011 - val_regularization_error: 21.7066
Epoch 491/1000
120/120 [=====] - ETA: 0s - loss: 41.7241 - reconstruction_error: 20.2812 - regularization_error: 21.4429
[2023-12-01 12:09:53.057346]: Reconstructing images for epoch 491 ...
```



```
120/120 [=====] - 20s 166ms/step - loss: 41.7241 - reconstruction_error: 20.2812 - regularization_error: 21.4429 - val_loss: 80.9584 - val_reconstruction_error: 60.0224 - val_regularization_error: 20.9360
Epoch 492/1000
120/120 [=====] - 16s 133ms/step - loss: 42.0028 - reconstruction_error: 20.3706 - regularization_error: 21.6322 - val_loss: 80.6618 - val_reconstruction_error: 59.6855 - val_regularization_error: 20.9763
Epoch 493/1000
120/120 [=====] - 16s 133ms/step - loss: 42.1376 - reconstruction_error: 20.3370 - regularization_error: 21.8007 - val_loss: 79.3076 - val_reconstruction_error: 59.5187 - val_regularization_error: 19.7889
Epoch 494/1000
120/120 [=====] - 17s 141ms/step - loss: 41.8237 - reconstruction_error: 20.3492 - regularization_error: 21.4746 - val_loss: 80.4857 - val_reconstruction_error: 61.0583 - val_regularization_error: 19.4275
Epoch 495/1000
120/120 [=====] - 14s 118ms/step - loss: 42.1043 - reconstruction_error: 20.4453 - regularization_error: 21.6590 - val_loss: 80.3355 - val_reconstruction_error: 60.3150 - val_regularization_error: 20.0205
Epoch 496/1000
120/120 [=====] - 16s 134ms/step - loss: 41.9304 - reconstruction_error: 20.3752 - regularization_error: 21.5552 - val_loss: 80.9710 - val_reconstruction_error: 60.5313 - val_regularization_error: 20.4397
Epoch 497/1000
120/120 [=====] - 18s 147ms/step - loss: 41.8906 - reconstruction_error: 20.2912 - regularization_error: 21.5995 - val_loss: 80.1222 - val_reconstruction_error: 60.8215 - val_regularization_error: 19.3008
Epoch 498/1000
120/120 [=====] - 18s 148ms/step - loss: 42.2802 - reconstruction_error: 20.4910 - regularization_error: 21.7892 - val_loss: 82.2722 - val_reconstruction_error: 61.2920 - val_regularization_error: 20.9803
Epoch 499/1000
120/120 [=====] - 15s 121ms/step - loss: 41.7403 - reconstruction_error: 20.1231 - regularization_error: 21.6173 - val_loss: 79.6900 - val_reconstruction_error: 60.5362 - val_regularization_error: 19.1539
Epoch 500/1000
120/120 [=====] - 18s 144ms/step - loss: 41.8829 - reconstruction_error: 20.3704 - regularization_error: 21.5125 - val_loss: 80.2242 - val_reconstruction_error: 60.8364 - val_regularization_error: 19.3879
Epoch 501/1000
120/120 [=====] - ETA: 0s - loss: 41.8836 - reconstruction_error: 20.4292 - regularization_error: 21.4544
[2023-12-01 12:12:42.632092]: Reconstructing images for epoch 501 ...
```

