```
Plots saved to plots/all_distributions.png

================================================================================
ANALYSIS OF NUMERICAL FEATURES DISTRIBUTIONS
================================================================================

================================================================================
Feature: mean_radius
================================================================================
Basic statistics:
  Mean: 14.1273
  Median: 13.3700
  Standard deviation: 3.5210
  Q1: 11.7000
  Q3: 15.7800
  IQR: 4.0800

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 0.9399)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 36.93%)
  3. Similarity to normal distribution: moderately similar to normal
     (Kurtosis coefficient: 0.8276)

Shapiro-Wilk test:
  Statistic: 0.941069
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_texture
================================================================================
Basic statistics:
  Mean: 19.2896
  Median: 18.8400
  Standard deviation: 4.2973
  Q1: 16.1700
  Q3: 21.8000
  IQR: 5.6300

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 0.6487)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 40.04%)
  3. Similarity to normal distribution: moderately similar to normal
     (Kurtosis coefficient: 0.7411)

Shapiro-Wilk test:
  Statistic: 0.976721
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)
```

```
================================================================================
Feature: mean_perimeter
================================================================================
Basic statistics:
  Mean: 91.9690
  Median: 86.2400
  Standard deviation: 24.2776
  Q1: 75.1700
  Q3: 104.1000
  IQR: 28.9300

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 0.9880)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 38.41%)
  3. Similarity to normal distribution: moderately similar to normal
     (Kurtosis coefficient: 0.9532)

Shapiro-Wilk test:
  Statistic: 0.936183
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_area
================================================================================
Basic statistics:
  Mean: 654.8891
  Median: 551.1000
  Standard deviation: 351.6048
  Q1: 420.3000
  Q3: 782.7000
  IQR: 362.4000

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.6414)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 35.05%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 3.6098)

Shapiro-Wilk test:
  Statistic: 0.858401
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_smoothness
================================================================================
Basic statistics:
  Mean: 0.0964
  Median: 0.0959
  Standard deviation: 0.0141
```

```
  Q1: 0.0864
  Q3: 0.1053
  IQR: 0.0189

Distribution shape analysis:
  1. Tail size and shape: symmetric
     (Skewness coefficient: 0.4551)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 43.28%)
  3. Similarity to normal distribution: moderately similar to normal
     (Kurtosis coefficient: 0.8379)

Shapiro-Wilk test:
  Statistic: 0.987487
  p-value: 0.000086
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_compactness
================================================================================
Basic statistics:
  Mean: 0.1043
  Median: 0.0926
  Standard deviation: 0.0528
  Q1: 0.0649
  Q3: 0.1304
  IQR: 0.0655

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.1870)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 38.97%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 1.6251)

Shapiro-Wilk test:
  Statistic: 0.916978
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_concavity
================================================================================
Basic statistics:
  Mean: 0.0888
  Median: 0.0615
  Standard deviation: 0.0796
  Q1: 0.0296
  Q3: 0.1307
  IQR: 0.1011

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.3975)
```

```
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 42.49%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 1.9706)

Shapiro-Wilk test:
  Statistic: 0.866831
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_concave_points
================================================================================
Basic statistics:
  Mean: 0.0489
  Median: 0.0335
  Standard deviation: 0.0388
  Q1: 0.0203
  Q3: 0.0740
  IQR: 0.0537

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.1681)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 44.70%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 1.0467)

Shapiro-Wilk test:
  Statistic: 0.891650
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_symmetry
================================================================================
Basic statistics:
  Mean: 0.1812
  Median: 0.1792
  Standard deviation: 0.0274
  Q1: 0.1619
  Q3: 0.1957
  IQR: 0.0338

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 0.7237)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 37.88%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 1.2661)

Shapiro-Wilk test:
  Statistic: 0.972589
```

```
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: mean_fractal_dimension
================================================================================
Basic statistics:
  Mean: 0.0628
  Median: 0.0615
  Standard deviation: 0.0071
  Q1: 0.0577
  Q3: 0.0661
  IQR: 0.0084

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.3010)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 37.99%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 2.9690)

Shapiro-Wilk test:
  Statistic: 0.923284
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_radius
================================================================================
Basic statistics:
  Mean: 0.4052
  Median: 0.3242
  Standard deviation: 0.2771
  Q1: 0.2324
  Q3: 0.4789
  IQR: 0.2465

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 3.0805)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 30.83%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 17.5212)

Shapiro-Wilk test:
  Statistic: 0.745554
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_texture
================================================================================
Basic statistics:
```

```
  Mean: 1.2169
  Median: 1.1080
  Standard deviation: 0.5512
  Q1: 0.8339
  Q3: 1.4740
  IQR: 0.6401

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.6421)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 38.29%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 5.2918)

Shapiro-Wilk test:
  Statistic: 0.896168
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_perimeter
================================================================================
Basic statistics:
  Mean: 2.8661
  Median: 2.2870
  Standard deviation: 2.0201
  Q1: 1.6060
  Q3: 3.3570
  IQR: 1.7510

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 3.4345)
  2. IQR size relative to the rest of the distribution: small (less than 30% of interquartile range)
     (IQR relative to 90% range: 29.63%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 21.2038)

Shapiro-Wilk test:
  Statistic: 0.718164
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_area
================================================================================
Basic statistics:
  Mean: 40.3371
  Median: 24.5300
  Standard deviation: 45.4510
  Q1: 17.8500
  Q3: 45.1900
  IQR: 27.3400
```

```
Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 5.4328)
  2. IQR size relative to the rest of the distribution: small (less than 30% of interquartile range)
     (IQR relative to 90% range: 26.18%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 48.7672)

Shapiro-Wilk test:
  Statistic: 0.563820
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_smoothness
================================================================================
Basic statistics:
  Mean: 0.0070
  Median: 0.0064
  Standard deviation: 0.0030
  Q1: 0.0052
  Q3: 0.0081
  IQR: 0.0030

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 2.3083)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 33.25%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 10.3675)

Shapiro-Wilk test:
  Statistic: 0.838410
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_compactness
================================================================================
Basic statistics:
  Mean: 0.0255
  Median: 0.0204
  Standard deviation: 0.0179
  Q1: 0.0131
  Q3: 0.0324
  IQR: 0.0194

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.8972)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 36.77%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 5.0510)
```

```
Shapiro-Wilk test:
  Statistic: 0.836878
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_concavity
================================================================================
Basic statistics:
  Mean: 0.0319
  Median: 0.0259
  Standard deviation: 0.0302
  Q1: 0.0151
  Q3: 0.0420
  IQR: 0.0270

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 5.0970)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 35.62%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 48.4226)

Shapiro-Wilk test:
  Statistic: 0.672070
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_concave_points
================================================================================
Basic statistics:
  Mean: 0.0118
  Median: 0.0109
  Standard deviation: 0.0062
  Q1: 0.0076
  Q3: 0.0147
  IQR: 0.0071

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.4409)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 37.12%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 5.0708)

Shapiro-Wilk test:
  Statistic: 0.919706
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
```

```
Feature: se_symmetry
================================================================================
Basic statistics:
  Mean: 0.0205
  Median: 0.0187
  Standard deviation: 0.0083
  Q1: 0.0152
  Q3: 0.0235
  IQR: 0.0083

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 2.1893)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 35.82%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 7.8164)

Shapiro-Wilk test:
  Statistic: 0.828386
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: se_fractal_dimension
================================================================================
Basic statistics:
  Mean: 0.0038
  Median: 0.0032
  Standard deviation: 0.0026
  Q1: 0.0022
  Q3: 0.0046
  IQR: 0.0023

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 3.9136)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 35.88%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 26.0399)

Shapiro-Wilk test:
  Statistic: 0.695079
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_radius
================================================================================
Basic statistics:
  Mean: 16.2692
  Median: 14.9700
  Standard deviation: 4.8290
  Q1: 13.0100
```

```
  Q3: 18.7900
  IQR: 5.7800

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.1002)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 38.26%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 0.9253)

Shapiro-Wilk test:
  Statistic: 0.913492
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_texture
================================================================================
Basic statistics:
  Mean: 25.6772
  Median: 25.4100
  Standard deviation: 6.1409
  Q1: 21.0800
  Q3: 29.7200
  IQR: 8.6400

Distribution shape analysis:
  1. Tail size and shape: symmetric
     (Skewness coefficient: 0.4970)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 43.80%)
  3. Similarity to normal distribution: close to normal
     (Kurtosis coefficient: 0.2118)

Shapiro-Wilk test:
  Statistic: 0.982562
  p-value: 0.000003
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_perimeter
================================================================================
Basic statistics:
  Mean: 107.2612
  Median: 97.6600
  Standard deviation: 33.5730
  Q1: 84.1100
  Q3: 125.4000
  IQR: 41.2900

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.1252)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
```

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     (IQR relative to 90% range: 39.78%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 1.0502)

Shapiro-Wilk test:
  Statistic: 0.912585
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_area
================================================================================
Basic statistics:
  Mean: 880.5831
  Median: 686.5000
  Standard deviation: 568.8565
  Q1: 515.3000
  Q3: 1084.0000
  IQR: 568.7000

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.8545)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 33.88%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 4.3473)

Shapiro-Wilk test:
  Statistic: 0.816070
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_smoothness
================================================================================
Basic statistics:
  Mean: 0.1324
  Median: 0.1313
  Standard deviation: 0.0228
  Q1: 0.1166
  Q3: 0.1460
  IQR: 0.0294

Distribution shape analysis:
  1. Tail size and shape: symmetric
     (Skewness coefficient: 0.4143)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 38.63%)
  3. Similarity to normal distribution: moderately similar to normal
     (Kurtosis coefficient: 0.5028)

Shapiro-Wilk test:
  Statistic: 0.988620
  p-value: 0.000210
```

```
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_compactness
================================================================================
Basic statistics:
  Mean: 0.2543
  Median: 0.2119
  Standard deviation: 0.1572
  Q1: 0.1472
  Q3: 0.3391
  IQR: 0.1919

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.4697)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 38.93%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 3.0021)

Shapiro-Wilk test:
  Statistic: 0.891064
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_concavity
================================================================================
Basic statistics:
  Mean: 0.2722
  Median: 0.2267
  Standard deviation: 0.2084
  Q1: 0.1145
  Q3: 0.3829
  IQR: 0.2684

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.1472)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 40.42%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 1.5906)

Shapiro-Wilk test:
  Statistic: 0.917528
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_concave_points
================================================================================
Basic statistics:
  Mean: 0.1146
```

```
  Median: 0.0999
  Standard deviation: 0.0657
  Q1: 0.0649
  Q3: 0.1614
  IQR: 0.0965

Distribution shape analysis:
  1. Tail size and shape: symmetric
     (Skewness coefficient: 0.4913)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 45.37%)
  3. Similarity to normal distribution: moderately similar to normal
     (Kurtosis coefficient: -0.5414)

Shapiro-Wilk test:
  Statistic: 0.964835
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_symmetry
================================================================================
Basic statistics:
  Mean: 0.2901
  Median: 0.2822
  Standard deviation: 0.0618
  Q1: 0.2504
  Q3: 0.3179
  IQR: 0.0675

Distribution shape analysis:
  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.4301)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 34.89%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 4.3951)

Shapiro-Wilk test:
  Statistic: 0.916144
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

================================================================================
Feature: worst_fractal_dimension
================================================================================
Basic statistics:
  Mean: 0.0839
  Median: 0.0800
  Standard deviation: 0.0180
  Q1: 0.0715
  Q3: 0.0921
  IQR: 0.0206

Distribution shape analysis:
```

  1. Tail size and shape: right tail longer (positive skewness)
     (Skewness coefficient: 1.6582)
  2. IQR size relative to the rest of the distribution: medium (30-50% of interquartile range)
     (IQR relative to 90% range: 36.20%)
  3. Similarity to normal distribution: differs from normal
     (Kurtosis coefficient: 5.1881)

Shapiro-Wilk test:
  Statistic: 0.889546
  p-value: 0.000000
  Conclusion: Distribution DIFFERS from normal (p ≤ 0.05)

==
SUMMARY TABLE OF RESULTS
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Feature	Skewness	Kurtosis	IQR/Range	Shapiro-Wilk p-value	Normal?
mean_radius	0.940	0.828	36.93%	0.000000	No
mean_texture	0.649	0.741	40.04%	0.000000	No
mean_perimeter	0.988	0.953	38.41%	0.000000	No
mean_area	1.641	3.610	35.05%	0.000000	No
mean_smoothness	0.455	0.838	43.28%	0.000086	No
mean_compactness	1.187	1.625	38.97%	0.000000	No
mean_concavity	1.397	1.971	42.49%	0.000000	No
mean_concave_points	1.168	1.047	44.70%	0.000000	No
mean_symmetry	0.724	1.266	37.88%	0.000000	No
mean_fractal_dimension	1.301	2.969	37.99%	0.000000	No
se_radius	3.080	17.521	30.83%	0.000000	No
se_texture	1.642	5.292	38.29%	0.000000	No
se_perimeter	3.435	21.204	29.63%	0.000000	No
se_area	5.433	48.767	26.18%	0.000000	No
se_smoothness	2.308	10.368	33.25%	0.000000	No
se_compactness	1.897	5.051	36.77%	0.000000	No
se_concavity	5.097	48.423	35.62%	0.000000	No
se_concave_points	1.441	5.071	37.12%	0.000000	No
se_symmetry	2.189	7.816	35.82%	0.000000	No
se_fractal_dimension	3.914	26.040	35.88%	0.000000	No
worst_radius	1.100	0.925	38.26%	0.000000	No
worst_texture	0.497	0.212	43.80%	0.000003	No
worst_perimeter	1.125	1.050	39.78%	0.000000	No
worst_area	1.854	4.347	33.88%	0.000000	No
worst_smoothness	0.414	0.503	38.63%	0.000210	No
worst_compactness	1.470	3.002	38.93%	0.000000	No
worst_concavity	1.147	1.591	40.42%	0.000000	No
worst_concave_points	0.491	-0.541	45.37%	0.000000	No
worst_symmetry	1.430	4.395	34.89%	0.000000	No
worst_fractal_dimension	1.658	5.188	36.20%	0.000000	No

Summary table saved to plots/distribution_summary.csv

==
ANALYSIS COMPLETED
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