PxrManifold3D

Encapsulates 3D parameterization for pattern generators. Allows selection of Pref and specification of a coordinate system to transform to. Uses a simple struct to represent bundled dataflow of outputs.

Input Parameters

Scale

Scale the frequency of the feature uniformly in 3D.

Use
Select the type of position you want to use.

	Usage	Value	Default variable
Current position: P	Use the current (displaced) surface position	0	P
Undisplaced position: Po	Use the surface position <u>before</u> it was displaced	1	Po
Deform : __Pref	Use a reference position primitive variable in object space	2	__Pref
Deform & transform: __WPref	Use a reference position primitive variable in world space	3	__WPref

⚠ You can only use `__Pref` and `__WPref` if these primitive variables have been attached to your geometry.

Why use the un-displaced position ?

When using the same 3d noise in the BxDF and the displacement, you should use Po to make sure the patterns are lining up.
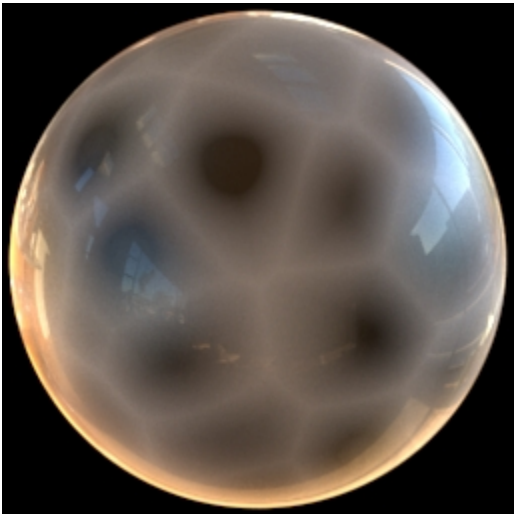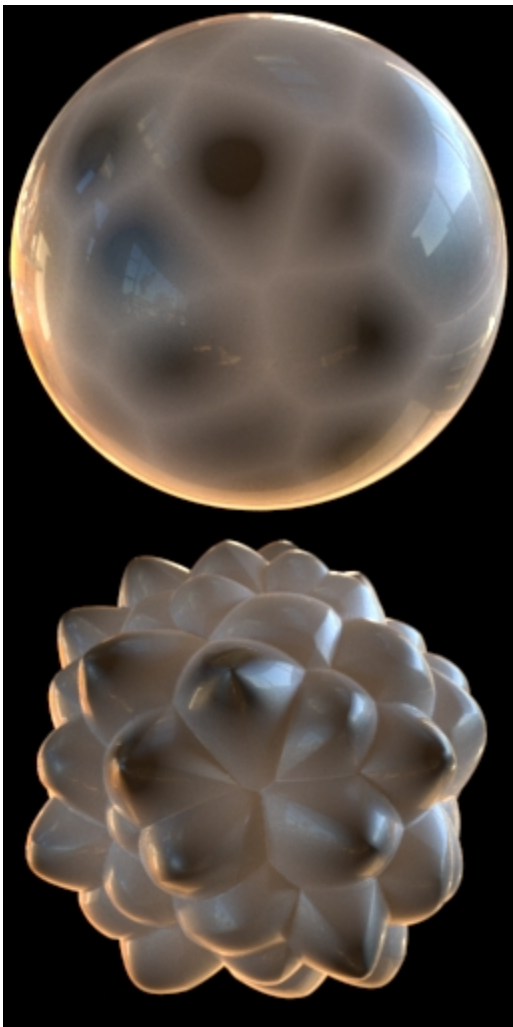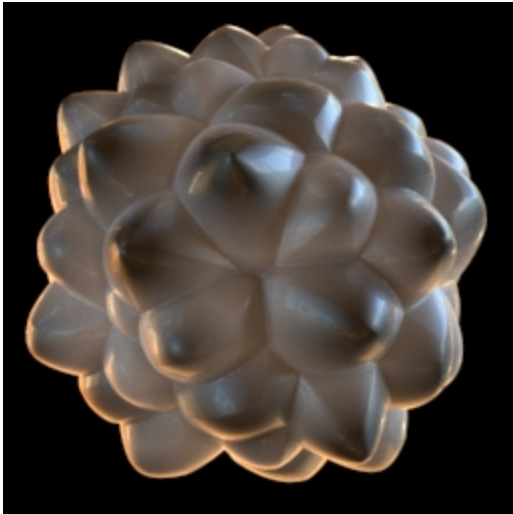
Bad: using P   Good: using Po

Pref

Name of geometry Pref (Maya uses __Pref and __WPref).

⚠ This field is only used when **Use** is set to "**Deform : __Pref"** or **"Deform & transform: __WPref"**.

If left empty, we assume either `__Pref` or `__WPref`, based on the current **Use** settings.

⚠️

Coordinate System

Name of a coordinate system transform to apply to the manifold. (Maya calls these place3d nodes).

> ⓘ   If left empty, we use the position in <u>object-space</u>, as this is what you need for non-deforming objects.

Output Parameters

result

The 3D manifold.

resultX

A float representation of the X component of the manifold.

resultY

A float representation of the Y component of the manifold.

resultZ

A float representation of the Z component of the manifold.