Blender Assets
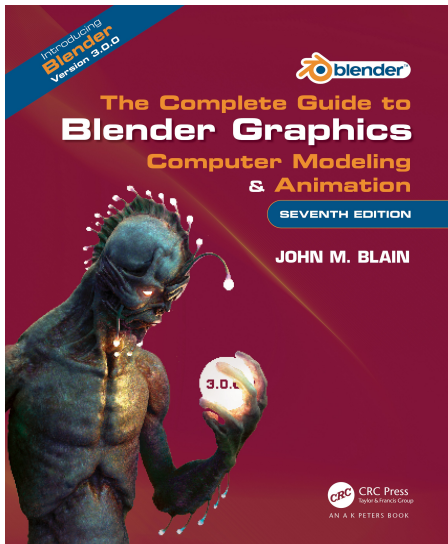
Blender Assets is offered as a **FREE** supplement to:

The Complete Guide to Blender Graphics, 7th Edition

**Blender Assets** are pre-constructed components for embellishing Models or creating Scenes.

Using Assets saves you time and as the saying goes, **There is no point in reinventing the wheel**.

Computer Artists legitimately employ Assets in their work for the above reason, whether they have created the Asset themselves or the Asset has been provided by another Artist.

There are Video Tutorials on the Internet describing the implementation of **Assets**.

The examples and instruction often make the assumption that the viewer is conversant with Blender and has a reasonably advanced knowledge. It is, therefore, felt that a beginner may struggle to understand the instruction.

Blender is continually being developed with new features being incorporated and improvements made. In writing an instruction book it is difficult, if not impossible, to keep pace with the developments. The lead time from completing a manuscript to publication to release, prohibits some features from being included. **Blender Assets** were not included in the book and are, therefore, offered as a supplement to the book and free to to those who are interested.

Assets from BlendKit
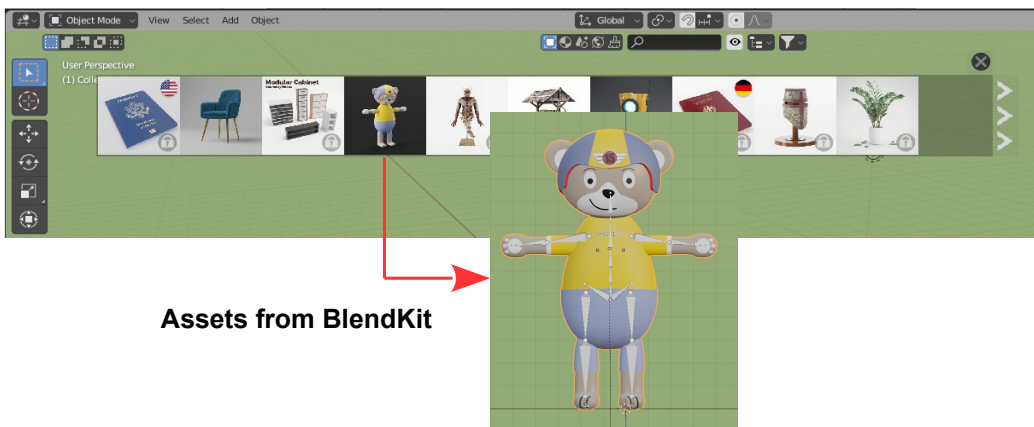
Blender Assets

In Blender, an **Asset** is a Pre-Constructed Model, a Material (color), or a Material Texture or anything that is useful.

Computer Graphics Artists often draw on **Assets** to embellish their work or to save time. There are many sources on the internet where Assets may be downloaded, therefore, Blender incorporates an **Assets Browser** in the program which links to an **Assets Library.** There are also **Add-ons** which may be installed in Blender to provide additional Asset Resources.

The **Assets Library** is a Folder you create on your hard drive which, initially, will be empty. You add Assets to the Library which may be viewed and selected in the Assets Browser, then entered in the Scene in the current Blender File. The Assets Browser is, therefore, a special Editor.

One **Add-on** is named **BlenderKit** which provides a selection of Models, Materials, Scenes, HDR Images and Brushes. The Add-on has to be downloaded and installed in Blender where it provides links to on-line resources. To obtain **BlenderKit** you have to register as a user then select a Free or Paid option.

Many on-line sources for Assets provide Free Assets and Paid Assets.

The Assets Browser

As previously stated the **Assets Browser** links to the **Assets Library**. At the time of writing this feature is under development, therefore, the procedure of operation will depend on your version of the Blender program. Initially access to the Assets Browser is obtained by clicking the Editor Type Icon and selecting **Assets Browser** in the selection menu (Figure 1.1).
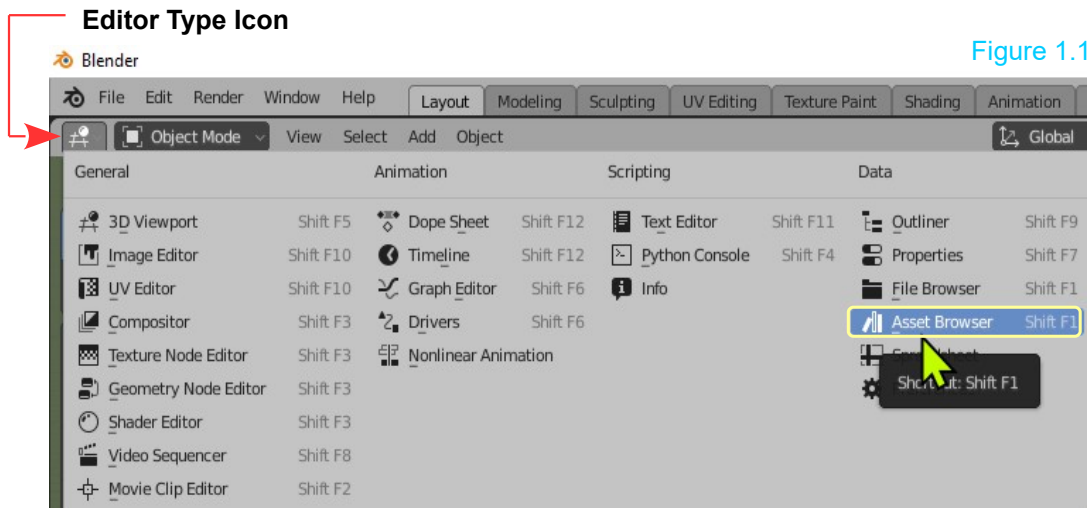
Figure 1.1

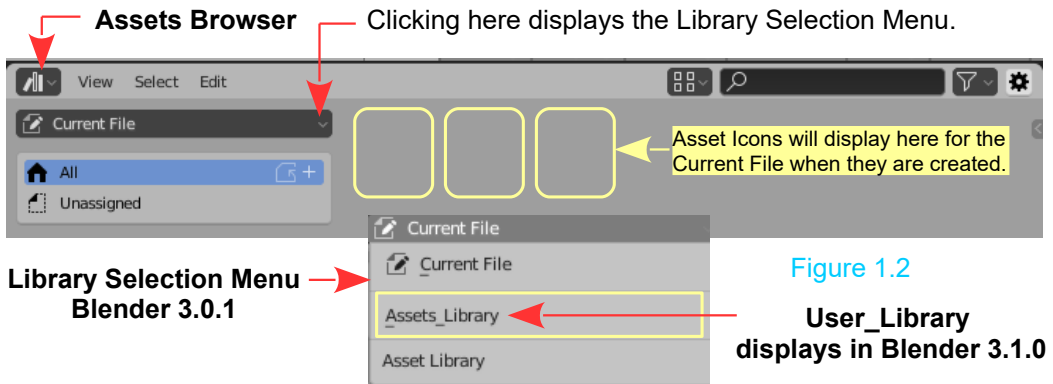For convenience divide the 3D Viewport Editor vertically and make one half the **Assets Browser**.

Assets Browser ── Clicking here displays the Library Selection Menu.

Asset Icons will display here for the Current File when they are created.

**Library Selection Menu
Blender 3.0.1**

Figure 1.2

**User_Library
displays in Blender 3.1.0**

Selecting **Assets Library** or **User Library** results in the following message being displayed.
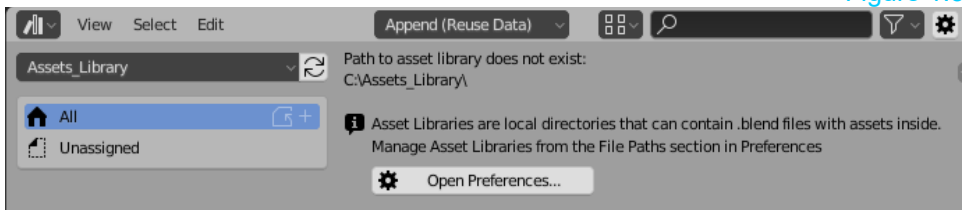
Figure 1.3

No Asset Icons display when **Current File** is selected since Assets haven't been created (Marked). The **Path to Asset Library** message displays because the File Path to the Library hasn't been set or the Library hasn't been created.

Asset Libraries are Folders created on your hard drive in which you save Blender Files containing content **Marked as Assets**.

The **Assets Library** is simply a Folder that you create on your hard drive. The Folder may include sub Folders to categories your Assets.
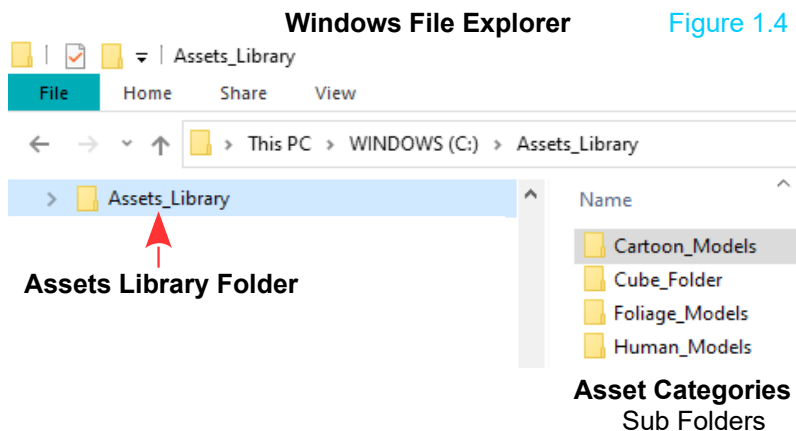
Windows File Explorer   Figure 1.4

Assets Library Folder

Asset Categories
Sub Folders

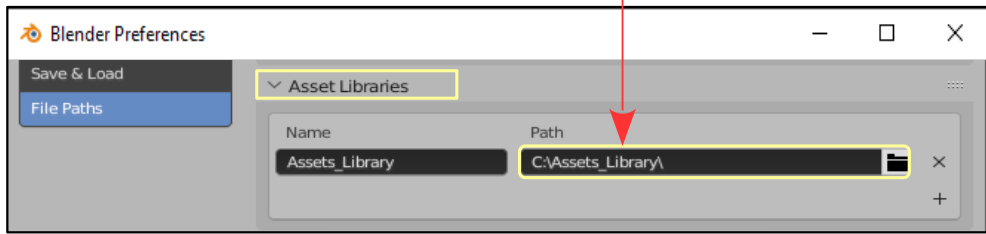To enable the **Assets Browser** to find the **Assets_Library Folder** you set the **File Path** in the **Preferences Editor**.

Before creating a Library, Assets may be generated when **Current File** is selected.

For example; A modified default Cube Object can be an Asset. With the Modified Cube selected in the 3D Viewport Editor, go to the Outliner Editor, select Cube, RMB Click and select **Mark as Asset** in the menu that displays. An Icon depicting the Modified Cube appears in the Asset Browser when **Current File** is Selected).
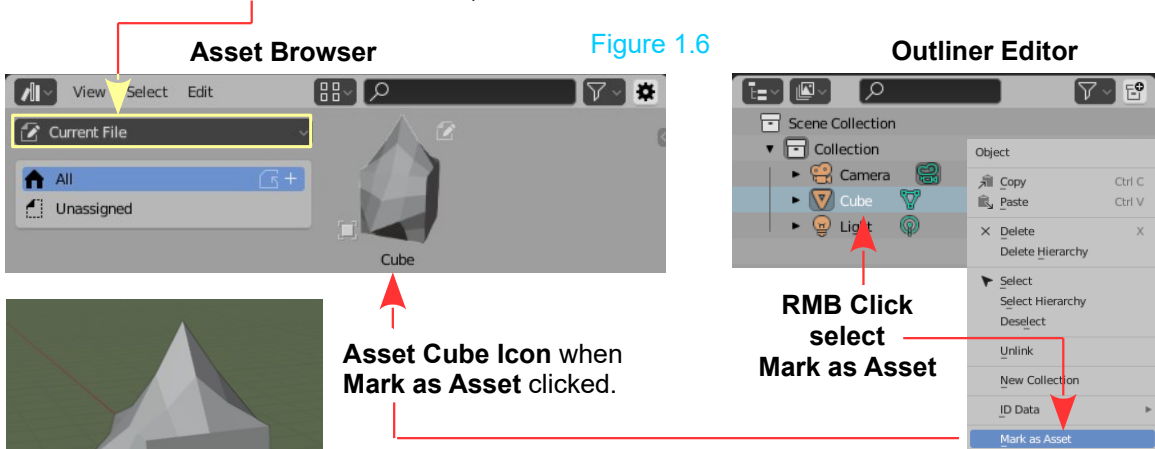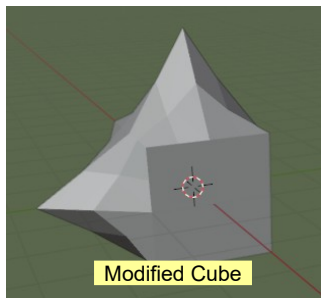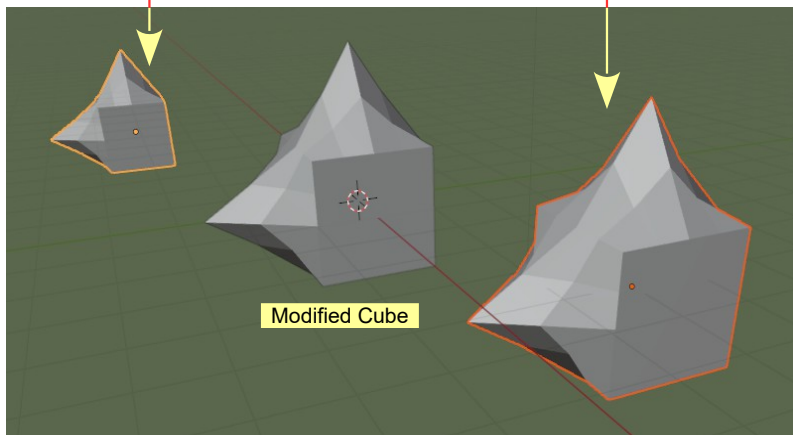
Asset Browser   Figure 1.6   **Outliner Editor**

Asset Cube Icon when
Mark as Asset clicked.

**RMB Click
select
Mark as Asset**

Modified Cube

3D Viewport Editor

In the **Assets Browser**, click on the **Cube Icon**, hold and drag into the **3D Viewport Editor** creating duplications.

Figure 1.7

Modified Cube

Add a **Material** to the Original Modified Cube in the Properties Editor, Material Properties. In the Outliner Editor, select Material under Cube. RMB Click and select **Mark as Asset**.

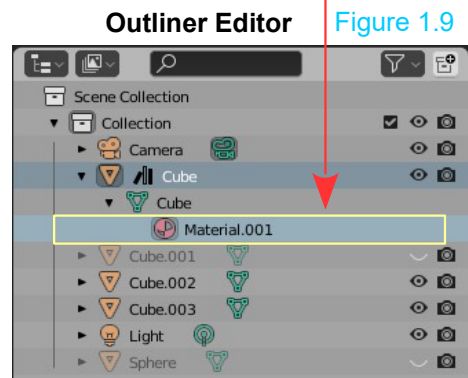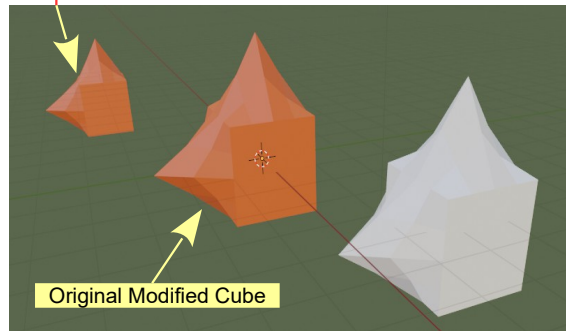**Assets Browser**   Figure 1.8   **Outliner Editor**   Figure 1.9

A **Material Icon** is displayed in the Assets Browser.

Click- Hold - Drag

Select one of the duplicated Modified Cubes in the 3D Viewport Editor. Click, hold and drag the Material Icon over to the selected Cube to apply the material to the Cube.

Figure 1.10

The foregoing has created and applied **Assets** with the **Assets Browser** in **Current File mode**. Saving the Blender File saves the Assets. The Assets are available when the File is reopened. When a new Blender File is opened the Assets created are not available in a new Blender File.

Original Modified Cube

To make Assets available for all Blender Files you create the **Assets Library**.

The Assets Library

Figures 1.4 and 1.5 show the Assets Library Folder created with Sub Folders categories. For convenience the Assets Library Folder has been created in the C: Drive of the computer. You can create a Folder and name it anything you like to be used as an Assets Library, providing you enter the **File Name** and **File Path** to the Folder in the **Preferences Editor**.
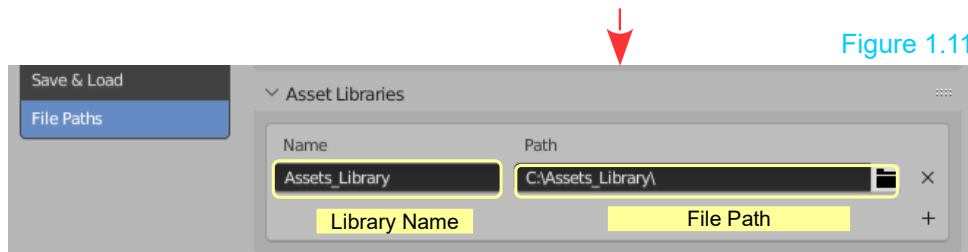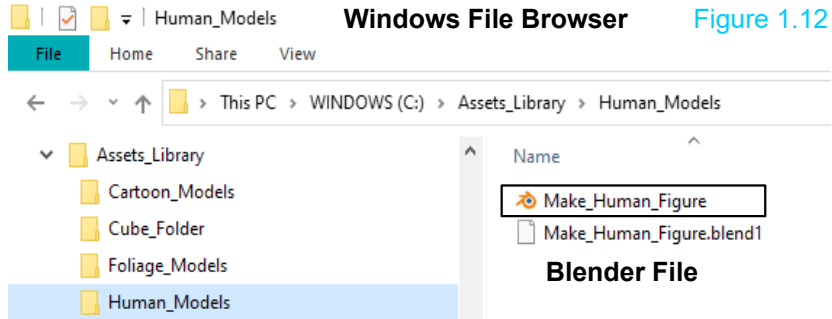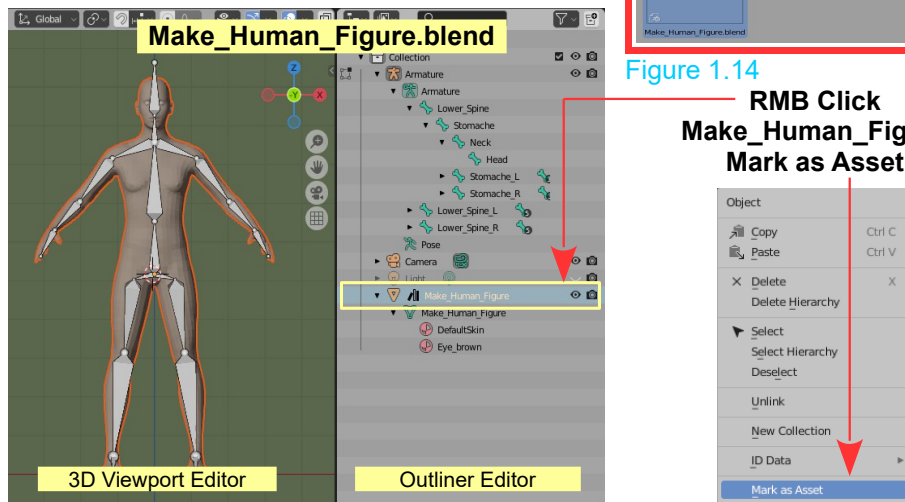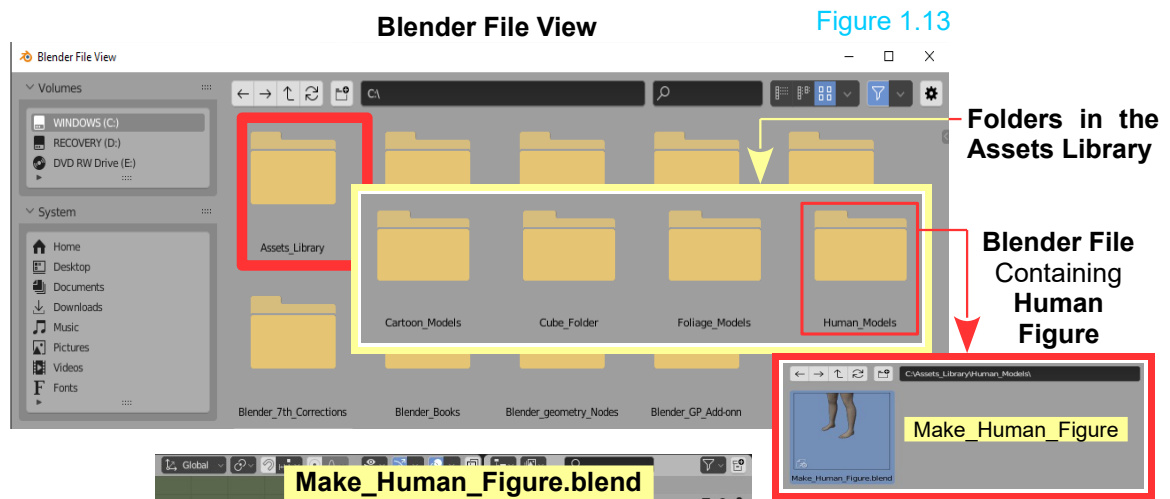
Figure 1.11

Preferences Editor – Asset Libraries Tab

Adding Assets to the Library

Assets are added to the Library as previously explained when adding to the Current File (Figure 1.6). The only difference being; you select **Assets_Library** instead of Current File.

Windows File Browser Figure 1.12

Blender File

The caveat for adding Assets is; you must have Blender Files containing what you wish to be an Asset saved in your Assets Library Directory.

Blender File View Figure 1.13

Folders in the Assets Library

Blender File Containing **Human Figure**

Figure 1.14

Make_Human_Figure

Make_Human_Figure.blend

RMB Click Make_Human_Figure Mark as Asset

3D Viewport Editor   Outliner Editor

Clicking **Make_Human_Figure** in the Outliner Editor and **Mark as Asset** places an Icon in the Assets Browser (Figure 1.15). Click the Icon in the Assets Browser, hold and drag into the 3D Viewport Editor to place the Model in the 3D Viewport Editor. You will have to Rotate and Scale to suit the Scene.
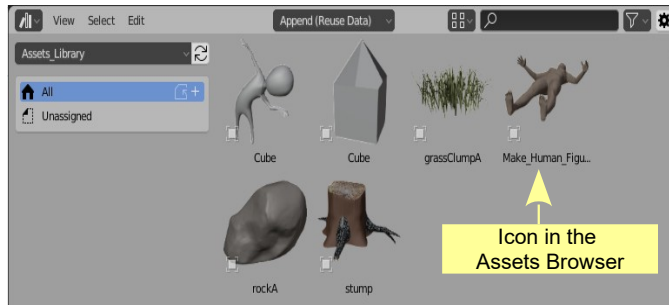
Blender Assets Browser

Figure 1.15

Assets Packs

Assets Packs are collection of Blender Files containing pre-constructed Models. Models can sometimes be very complex which means they are time consuming to create. There are numerous websites which offer Assets Packs which will save you time when creating Scenes. Some Packs are free, others require payment.

One free Asset Pack is named **Ground Foliage Pack** which may be downloaded from:

https://www.motionblendstudio.com/blender-vfx-assets

Figure 1.16

Ground Foliage Pack

This particular **Assets Pack** downloads as a **ZIP file** named **blenderGroundFoliage.zip** Unzipping the file produces two Folders; **MACOSX** and **blenderGroundFolige**.
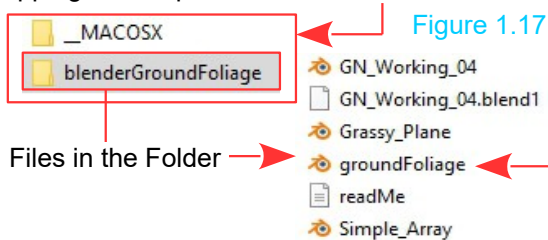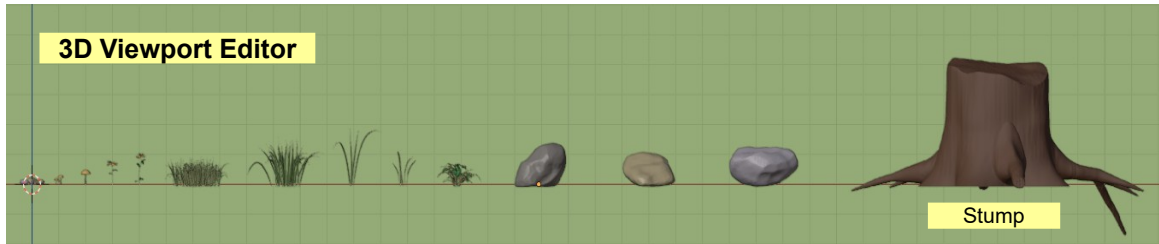

Figure 1.17

Files in the Folder ➞

The Folder named **blenderGroundFoliage** contains several Blender Files. The **Ground Foliage Pack** is contained in the File named: **groundFoliage** which is a **Blender File.**

7

Opening **groundFoliage.blend**, in Blender, displays a selection of models which may be **Appended** into other Blender File.

You may also select each Model in the **Outliner Editor** and **Mark as Asset** which adds the Model to your **Assets Library**.

Assets Browser   Figure 1.19   **Outliner Editor**
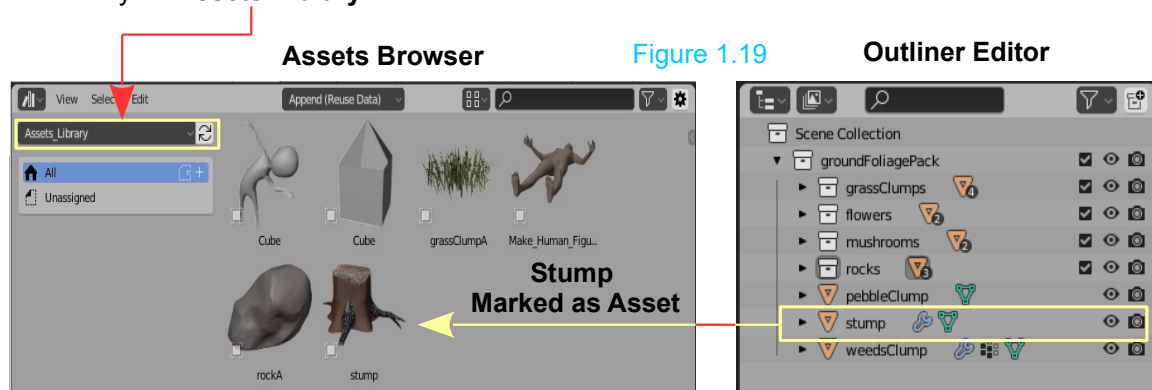
You may add as many Assets as you like to the Assets Library, providing you have Blender Files saved on your PC containing the Assets. The saved Assets will be available when you open a new Blender File.
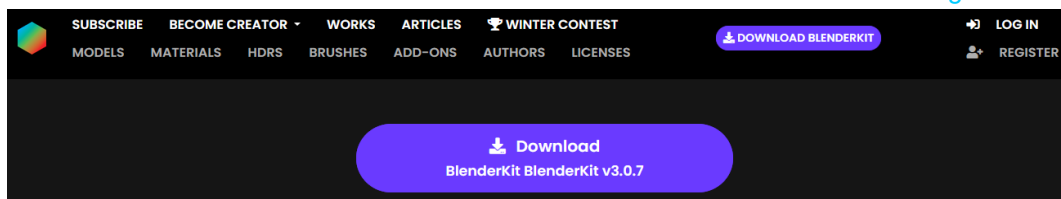
As you can imagine, over time, the Assets Library could become heavily populated and you will accumulate many Blender Files.

An alternative is to use **on-line resources**. One resource is the **BlendKit Online Assets Library**.
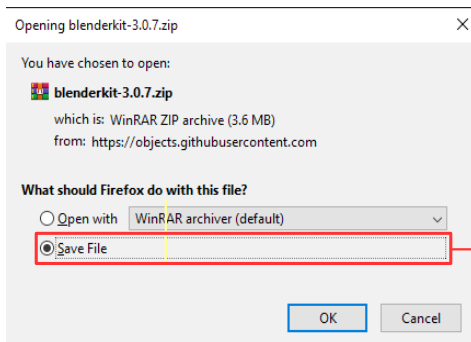
BlendKit

BlendKit as an Add-on to Blender. Download from: https://www.blenderkit.com/get-blenderkit/
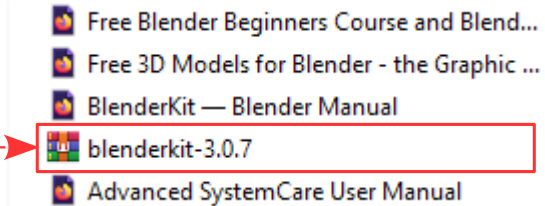
Figure 1.20

Download BlenderKit v3.0.7

Figure 1.21

blendkit-3.0.7 saved in the Downloads Folder

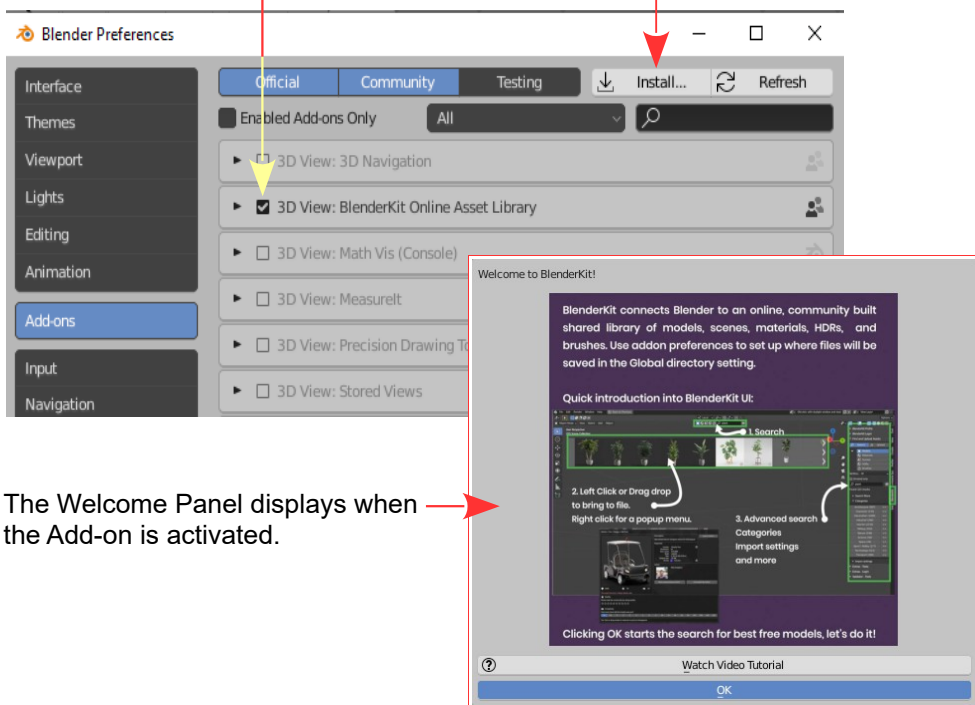The **blendkit-3.0.7** File is a compressed ZIP File. **Do NOT unzip the File**.

Go to the **Preferences Editor**, **Add-ons**. Click on **Install.** Navigate to the Downloads Folder in **Blender File View** and select **blendkit-3.0.7**. Click **Install Add-on** at the bottom of the panel.

Don't forget to **activate the Add-on** once installed.

Install blendkit-3.0.7 in Blender
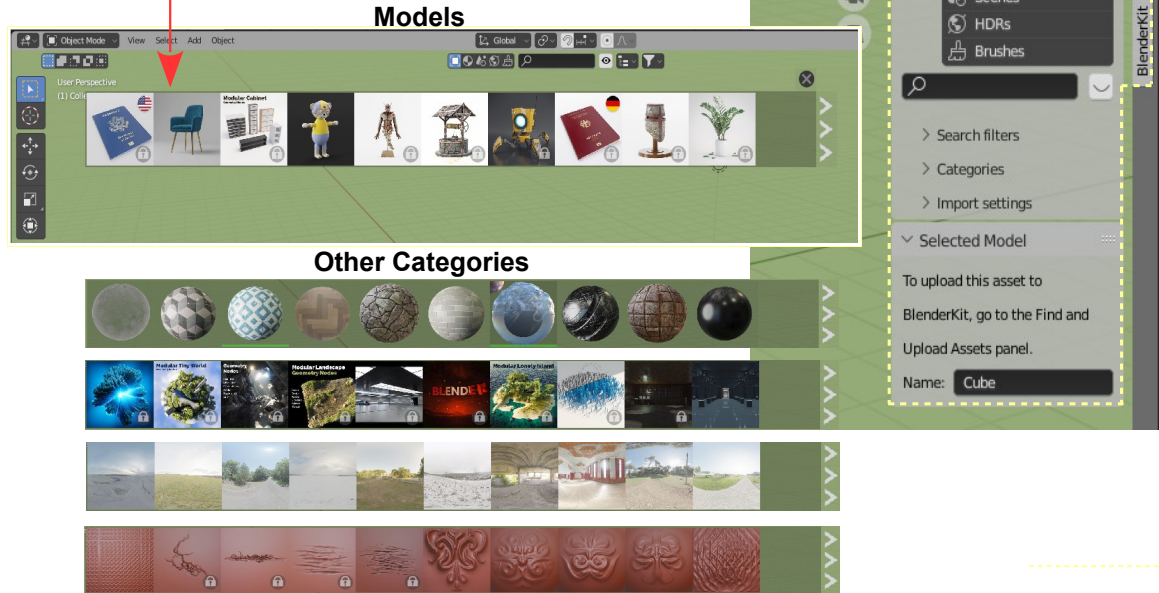
Figure 1.22

Activate the Add-on

The Welcome Panel displays when the Add-on is activated.

9

With **BlendKit** installed **and Activated** the Properties Panel in the 3D Viewport Editor (press N Key to toggle display) includes a **BlendKit Tab**.

Figure 1.23

With **Search** highlighted, clicking on one of the categories opens **selection panels** for choosing an Asset.

Models

Other Categories

BlendKit is linking Blender to an on-line Assets Library, therefore, Assets are not stored on your PC.

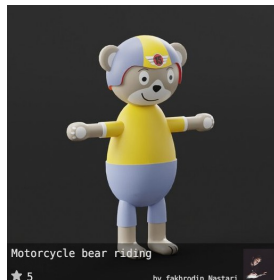**Note:** There are Locked and Unlocked Assets. Unlocked Assets are free, Locked Assets, you have to pay for.

Figure 1.24

Locked

Locked   **Unlocked**

Click on an Asset to expand the Icon.

Mouse over on an Asset, <u>click, hold and drag into the 3D Viewport Editor</u>. Zoom in and rotate the View.
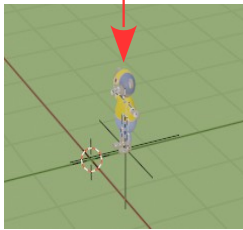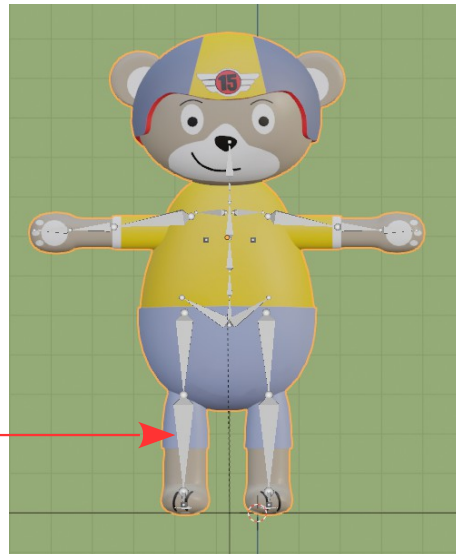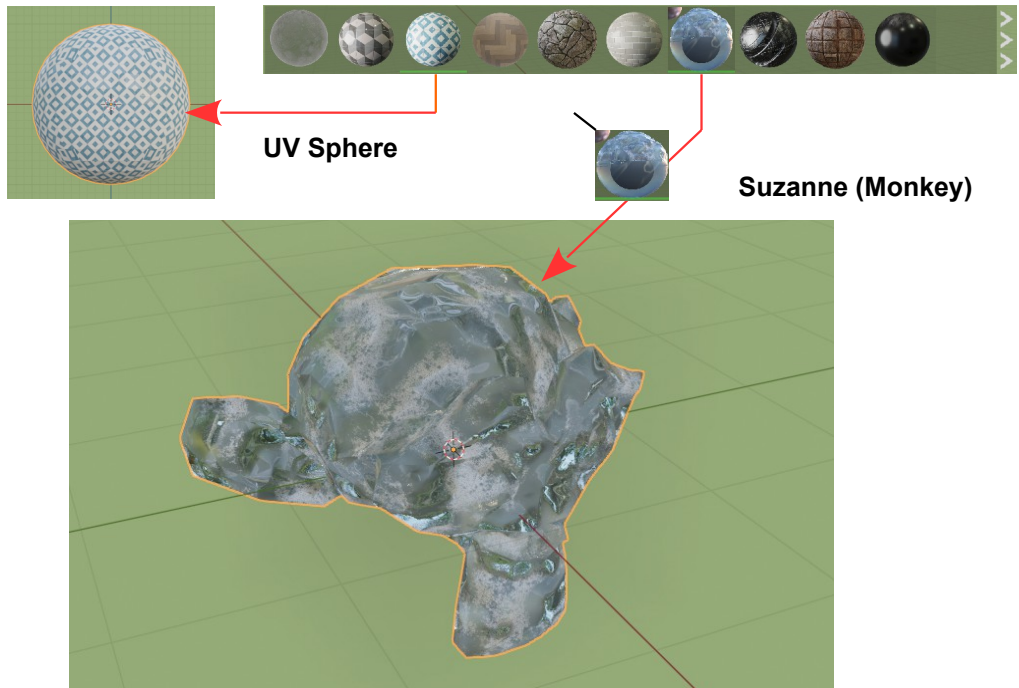

Figure 1.25

In Figure1.25 the **Motorcycle bear riding** Model is imported into the Blender File complete with **Materials** and has a **Metarig** for posing an Animation.

To use **Material Assets**, have a Model in the 3D Viewport Editor selected. Click, hold and drag the Material Asset over the selected Model.

Figure 1.26

UV Sphere

Suzanne (Monkey)

Note: Some Materials take a while to load and only display with the 3D Viewport Editor in Material Preview or rendered Viewport Shading Mode.