

## Considerations When Making Tunnels

Most fan maps contain tunnels of some sort and more than often these tunnels are very bland and lack detail, so here I will explain how a little bit of extra work goes a long way

See my map C&C\_Bio to see how I created tunnels that while being graphically detailed also encourage players to interact with them by placing objects that players can hide or take cover behind.

### Service Tunnel 'A'

<http://matt.wandel.ca/tunnels/verylong.jpg>

This industrial looking tunnel has lots of repeatable features the support brackets on the right and the pipes which extend all the way to the end - notice the cables lining the left wall are not perfectly straight adding realism and that normal imperfection that is seen in real life - I mention this real life imperfection as it very easy to just make a few cylinders and extend it to the end of the tunnel without thinking about kinks and slight bends that make the cable more realistic.

### Service Tunnel 'B'

<http://matt.wandel.ca/tunnels/thegrid.jpg>

[http://www.fuzzums.nl/~loesje/tunnel/tunnel\\_noord.jpg](http://www.fuzzums.nl/~loesje/tunnel/tunnel_noord.jpg)

These tunnel also shows repeatable features that could also be easily made in 3d and copied, also notice the extreme light and extreme dark in these images turning your ambient light and sun light off will enable you to light an environemnt exclusivly with your own point lights much like this, if you have ever played or seen "Splinter Cell" you will be aware of the drama that you can give to an environment with clever use of lighting (I will most likly mention lighting in general another time)

### Rocky walls

[http://www.oregon.gov/ODOT/CS/SSB/images/tunnels/mosier\\_cons truct.jpg](http://www.oregon.gov/ODOT/CS/SSB/images/tunnels/mosier_cons truct.jpg)

The walls seen here are quite jagged and stick alot this type of detailing could be easily be used to hide other tunnels in your cave systems. This makes the environemnt that little bit less

predicable, as anything could come from any where.

### Breaks in your tunnel

[http://englishriverwebsite.com/LewisClarkColumbiaRiver/Images/mosier\\_twin\\_tunnels\\_bicyclist\\_2005.jpg](http://englishriverwebsite.com/LewisClarkColumbiaRiver/Images/mosier_twin_tunnels_bicyclist_2005.jpg)

<http://www.sgtowns.com/photos/images/chiangmai/tunnels.jpg>

Here we can see that a tunnel ends and a new section begins there is no clear turning left or right so it seems pointless at first, but breaks like this can help open up an other wise clostrophobic environment. This feature can also give you new possibilities when it come to light too, a bridge could also be used to connect the two tunnels. also note the repeatable frame work of the tunnel walls. In the second image you can also see green plant life growing on the floor and leaves creeping in from the outside linking the visuals in the tunnel with the outside world.

### Tunnels without walls

<http://www.roadsage.com/images/kauai/tunnels.jpg>

Here we see that a tunnel is created not by using walls but over hanging trees and other vegetation invisable blockers can be used to stop players walking too deeply into the vegetation

### Arches

<http://www.campsci.com/museum/images/45g.jpg>

Easily made These also give you the opertunity to make extra tunnels where you like

### Diffrent types of Tunnels

And just to get your creative juices flowing here are some diffrent types of tunnels that grab my attention.

<http://kaedrin.com/fun/images/corridor.jpg>

[http://www.sealife-timmendorf.de/pi\\_foto010.jpg](http://www.sealife-timmendorf.de/pi_foto010.jpg)

<http://www.opacity.us/images/db/12/60/0000002050.jpg>

<http://www.oxford-chiltern-bus-page.co.uk/upload030705/Gerrards%20Cross%20Rail%20Tunnel%20Dennis%20Troughton.jpg>

<http://www.minispace.co.uk/blog/images/tunnel.jpg>

[http://www.berge.ch/berge\\_az/t/tunnel/tunnel.jpg](http://www.berge.ch/berge_az/t/tunnel/tunnel.jpg)

<http://www.arrakeen.ch/usamex/111%20%20small%20tunnel%20thru%20the%20rock.jpg>

<http://www.mabot.com/images/2000/n5/0002-1911%20stairway%20at%20end%20of%20tunnel.jpg>

<http://www.nci.org/05nci/09/iran-tunnel-photo-091605.jpg>

[http://www.alaskarails.org/potw-archive/2006/RH\\_moody-tunnel.jpg](http://www.alaskarails.org/potw-archive/2006/RH_moody-tunnel.jpg)

[http://www.hoermann-bc.de/palma\\_bilder/Marcos%20y%20Cordero%20%20Tunnel%20Nr%2012.jpg](http://www.hoermann-bc.de/palma_bilder/Marcos%20y%20Cordero%20%20Tunnel%20Nr%2012.jpg)