In our evolutionary quest we are
retarded by the substance of what
was previously considered natural.
Environment. We have evolved to the
point of changing our environment
to allow our healthy evolution. We
have left our "natural state"
because of our density but necessarily
because of will.

But density is a
stimulus and an existant natural
order. The pain of a delivery too
fast is forcing either our demise
or evolution into a spiral of
energy.

Most buildings (those square ones they drop people into) built recently in
large cities, have a built-in viable circulatory system which can be tapped
for the community benefit. An antenna is placed on top of a building and
connected to all apartments via cables in the walls in hopes that better
reception will soon appear. It also provides the people with the potential
for their own television channel. All that is needed is a portapack with an
RF unit, coax cable, F connectors, possibly a filter, and time. Our own
experience comes from working with the Westbeth system which is a huge
building of 368 apartments located on the Hudson River in Manhattan.
(See other article on Westbeth for info on funding and programming.)

Most master antenna systems are simple with a broadband amplifier after
the antenna. Sometimes the antenna lead is split into low bandwidth
(channels 2-6) and high band (7-13). The high band is passively split into
the separate channels, each having an inline attenuator or resistor (-10db,
-20db) which balances the different levels so all channels are at the same
level. The channels are mixed passively and sent to the broadband amp.
The output of this amp is split and sent to the various apartments. Each
line going out of the main box has about 5 apartments on it or is split and
possibly amplified again in another section of the building.

More complex systems add strip amps to the system. These are RF amps
specific for the channels in the area. They are used to both amplify the
signals and to balance (each amp has a gain control) all the signals.
Master antenna systems are kept at 75 ohms until they reach the
television sets where a matching transformer (called a balun) changes the
load to 300 ohms to match the tv's antenna taps.

Portapacks can be plugged into the antenna systems after the strip amps
or broadband amp. At the place where these amps are split up for the
apartments, a two way splitter is used, one input is the Sony RF signal,
the other is the output of the amp system. The output of the splitter goes
to where the amps were previously connected.

Sony RF units are messy for they spill over into a multitude of other
channels when transmitting. We solved the problem by using a Hamlin
bandpass filter for channel 3 ($19.95, made in Japan).

Hamlin Int. Corp., 126 S.W. 153rd St.
Seattle, Wash. 98166

We found that the portapack RF unit had enough power to drive 368
apartments, however if a strip amp is added, you get a stronger more
controlled signal.

Strip amps are about $89.00 from Jerrold Corp. in Philadelphia, but why
can't techno-folks come up with a tunable RF amp based on the one in
Motorola's "Radio Amateurs' IC Projects" (HMA56)?