

Revolution 360

For 24 Gramophones

Overview:

Revolution 360 is the main Gramophone Installation commission that we are all contributing to as a collaborative work. I have ‘designed’ the installation (or ‘composed the structure’) and each of us will populate this structure with content as described in this brief. It is an example of a ‘process installation’ in some sense – the process being a set of instructions that would result in a different outcome with different participants. The result is not known at the start.

Concept:

The concept of the piece is inspired by **Dendrochronology** – the method of dating tree rings. Visually, the cross section of tree rings bears a striking resemblance to the surface of a record – despite the fact that a record’s ‘grooves’ are actually one long spiralled groove, not separate rings like a tree. Of course when a record ‘skips’ it can result in a trapped ‘loop’ that does behave like a ‘ring’. A greater understanding of various historical facts can be ascertained through Dendrochronology and, given that ‘Sound Unbound’ is intended to introduce a broad ‘classical’ repertoire to new audiences, I’ve imaged a piece that contains ‘rings’ (or loops) of classical music history. This ‘sonic history’ will be presented through a structure that is governed by the physical properties of a 78rpm record – the standard in 1935, which is also roughly the limit of repertoire usually engaged with in ‘Sound Unbound’ weekends. It would take up too much space to explain everything here, but here are the brief structural foundations of the work:

- On average there are 335 cycles per side on a 12 inch 78rpm record – approximately $4\frac{1}{4}$ minutes ($8\frac{1}{2}$ when playing both sides). So:
 - The piece unpacks 335 years of ‘classical’ music history with 335 loops (1600 to 1935)
 - The piece lasts approximately $8\frac{1}{2}$ minutes
- The iconic π ratio (circumference:diameter) is used to govern the exponential increase in tempo throughout the piece (albeit quantised).
- The ‘cycle of 5^{ths}’ is employed to guide the ‘tonal centre’ progression of the piece
- The title comes from the following:
 - We often refer to developments in music as being ‘revolutionary’
 - A record ‘revolves’
 - 360 represents both the full circle of a record and also a rounding up of the years of history the piece unpacks.

Constructing your individual contributions to the work's content:

1. Refer to the grid below to find which Gramophone's material you will be constructing (e.g. mine is G23 - labelled, 'Mike').
2. You will see a list of 14 dates running vertically below your name from which to source music.
3. On the right hand side of the grid, you will see the parameters with which you should manipulate your source music to create a loop for each year:
 - a. **'tempo'** – this will need to be exact so the rhythmic feel of all 24 gramophones is synchronised
 - b. **'beats in loop'** – exact.
 - c. **'loop length in seconds'** - just for info, this is intrinsically linked to tempo and 'beats in loop'
 - d. **'Key/tonal centre'** – the underlying tonal centre of the segment you're looping. Attempt to choose segments that are as consistent as possible in this respect. This will understandably become harder to do as the years progress – which is an intended development aspect of the work - so become more relaxed with finding loops of consistent tonal centre the later the period.

Gramophone Grid:

	Gramophones:																								Loop details			
	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16	G17	G18	G19	G20	G21	G22	G23	G24	tempo	beats in loop	Loop length in seconds	keys / tonal centre
	Eric	Liam	Taylor	Vicky	Jan	Ethan	Gerard	Miky	Joel	SamND	Gosha	Ieva	Rena	Simon	Jasper	Cal	Max	SamT	SamW	Jordan	Henry	Jamie	Mike	Seth				
1600-23	1600	1601	1602	1603	1604	1605	1606	1607	1608	1609	1610	1611	1612	1613	1614	1615	1616	1617	1618	1619	1620	1621	1622	1623	60	2	2.00	C
1624-47	1624	1625	1626	1627	1628	1629	1630	1631	1632	1633	1634	1635	1636	1637	1638	1639	1640	1641	1642	1643	1644	1645	1646	1647	65	2	1.84	F
1648-71	1648	1649	1650	1651	1652	1653	1654	1655	1656	1657	1658	1659	1660	1661	1662	1663	1664	1665	1666	1667	1668	1669	1670	1671	70	2	1.70	G
1672-95	1672	1673	1674	1675	1676	1677	1678	1679	1680	1681	1682	1683	1684	1685	1686	1687	1688	1689	1690	1691	1692	1693	1694	1695	76	2	1.58	Bb
1696-19	1696	1697	1698	1699	1700	1701	1702	1703	1704	1705	1706	1707	1708	1709	1710	1711	1712	1713	1714	1715	1716	1717	1718	1719	81	3	2.21	D
1720-43	1720	1721	1722	1723	1724	1725	1726	1727	1728	1729	1730	1731	1732	1733	1734	1735	1736	1737	1738	1739	1740	1741	1742	1743	87	3	2.06	Eb
1744-67	1744	1745	1746	1747	1748	1749	1750	1751	1752	1753	1754	1755	1756	1757	1758	1759	1760	1761	1762	1763	1764	1765	1766	1767	93	3	1.93	A
1768-91	1768	1769	1770	1771	1772	1773	1774	1775	1776	1777	1778	1779	1780	1781	1782	1783	1784	1785	1786	1787	1788	1789	1790	1791	99	3	1.81	Ab
1792-15	1792	1793	1794	1795	1796	1797	1798	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1811	1812	1813	1814	1815	106	3	1.70	B
1816-39	1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	112	3	1.60	Db
1840-63	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	119	4	2.01	F# / Gb
1864-87	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	126	4	1.90	any of F C G D
1888-11	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	133	4	1.80	any of G A B Db Eb F
1912-35	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	141	4	1.71	any key

Important guidelines are included on the next page...

Guidelines:

- Copyright clearance is all taken care of through Barbican's PRS licence; so you can source/rip from Spotify, YouTube, CDs, LPs – basically anywhere.
- The following Wikipedia links give you an excellent starting point to find the names of, or even links to, pieces written in exactly the years you'll be looking for:
 - https://en.wikipedia.org/wiki/Table_of_years_in_music
 - https://en.wikipedia.org/w/index.php?title=Category:Compositions_by_year&subcatuntil=1879%7C%0A1879+compositions#mw-subcategories
- When choosing music, prioritise pieces that contain fragments close to the tempo and tonal centre – ± 10 bpm and ± 3 semitones – in order to avoid extreme manipulation (remember, a piece in C will have passages in close tonal centres like F, G, D etc., so search for these). The tonal centre refers to the loop fragment you supply, not necessarily the actual key of the piece. **RELATIVE MINORS ARE ACCEPTABLE IN PLACE OF THE MAJOR KEY STATED IN THE GRID.**
- **TWO** files per year piece should be submitted:
 - A specific loop (as per the specification in the GRID) that has been manipulated to match exact tempo and tonal centre
 - The full musical phrase that contains your loop fragment and that has been manipulated using the same settings as your loop (in terms of tempo and transposition adjustment). It is understood that the tempo and tonal centre of this longer file will deviate through this phrase.
- Bounce both your loop AND phrase as a MONO WAV file @ 16bit, 44.1kHz.
- Label your bounced audio files as follows: "Revolution_XXXX_loop" and "Revolution_XXXX_phrase - where XXXX is the year of the extract.
- Email me files individually as you complete (or wetransfer a batch if you complete several in one day): mike@stilltimemusic.co.uk
- The DEADLINE is the end of this term (so just over one year per day between now and 31st March).
- Please work CHRONOLOGICALLY and send files daily as they are completed (don't wait until you've complete all 14). This will greatly assist me as I start to construct the full piece and will enable me to feedback on any issues earlier in the process.

Mike Roberts, March 2017