MANHANDLING THE BRAIN
Psychiatric Neurosurgery in the Mid-20th Century

‘A brain can stand a good deal of manhandling’*

75 years ago, on 15th February 1941, ‘VB’, a 42-year-old labourer, was admitted to the Burden Neurological Clinic in Bristol. Four days later, under local anaesthesia, he became the first man in Britain to undergo prefrontal leucotomy.

The clinic director was Frederick Golla, a Queen’s Square trained neurologist who believed, unfashionably, that the brain was highly adaptable. VB was a traumatised veteran of the trenches who became acutely disturbed after clearing up a workers shelter hit during a bombing raid.

The notion that severing white matter tracts in the frontal lobes might relieve anxiety and distress in the mentally ill arose during the 2nd World Congress of Neurology, in August 1935 just down the road at University College. Egas Moniz, a neurologist and the world’s leading brain angiographer, lost little time in testing out his new idea. On 12th November that year ‘MC’, a 63-year-old Lisbon woman with agitated depression, became his first subject. He believed the operation a success, and in quick succession 19 others followed, and a monograph the following summer.

Despite widespread criticism the technique was trialled in several countries, and championed in the United States by Walter Freeman, a neurologist and neuropathologist. The US proved particularly receptive, once ‘lobotomy’ (Freeman’s preferred term) was found to modify unwanted behaviours as well as emotion. It was especially welcomed in large overcrowded state mental hospitals, institutions where care standards were often poor. Just how poor was revealed in a shocking Life magazine article, in 1946.

Leucotomy also flourished in the UK, with over 1000 operations by 1945 and over 17,000 in total. It is estimated that over 70,000 people were operated on worldwide before the procedure fell out of favour in the 1960s.
Manhandling the Brain, an art/historical project, explores these events, alongside the healthcare and academic environment in which they took place. Outcomes have included oral and written presentations, and this installation of artwork and archive material. An essay on the subject is available at the information desk, and on-line. Copies of the key papers and articles cited are also available.

* Walter Freeman, quoted in Pressman JD, *Last Resort: Psychosurgery and the Limits of Medicine*.

The artist/curator
Ken Barrett migrated to the art world from NHS neuropsychiatry. He gained an MA in fine art at Falmouth University and has since exhibited work in a variety of media and setting. More information is available at www.kenbarrettstudio.co.uk, ken@kenbarrettstudio.co.uk

#MANHANDLINGTHEBRAIN

Artwork:
- **‘Tentatives operatoires’**
  A mixed media work based on figures and data from Moniz’s 1936 monograph.
- **‘Bedlam’**
  Drawings and model based on photographs taken in state mental hospitals in Philadelphia and Ohio, from the *Life* article ‘Bedlam 1946’.
- **‘VB’**
  ‘VB’ was the first man in the UK to receive a prefrontal leucotomy, on 19th February 1941. This work, an assembly of objects and text, is based on his story.
- **‘Tools’**
  Models of five instruments used to perform prefrontal leucotomy.
- **‘Something more wonderful’**
- **‘4468: 2757: 169’**
  A mixed media work based on the number of prefrontal leucotomies performed in the UK 1948-52 (the first 5 years of the NHS).

Archive material:
Texts displayed with commentary (see following pages):
- Journal of Mental Science, 1943 volume (open at page 188-9).
- Journal of Mental Science, 1947 volume (open at page 3-4).
- Life magazine, 6 May 1946 (open at page 102-3).
- Board of Control (1947), Pre-frontal Leucotomy in 1000 Cases, HMSO

Please contact: neuroarchives@ucl.ac.uk or see www.queensquare.org.uk/archives for further information.
The first UK woman to have a leucotomy
VB featured in three papers between 1941 and 1947. Though freed from anxiety and nightmares adverse effects became increasingly evident with time. What is known about the first UK woman to have a leucotomy?

‘She was 25, had schizophrenia for 4 years duration’ and was ‘resistive, negativistic, destructive, constantly in a state of morbid apprehension, and rapidly deteriorating’. She had received ‘insulin coma, endocrine treatments, and 77 electrically induced convulsions in 11 months’. Her operation was also performed under local anaesthetic.

On returning home ‘reports of her progress have been satisfactory...she is rather childish and dependent on her mother’s supervision, but rational and can converse simply but sensibly. She is now partly occupied and able to earn some of her living in a small way’.

Source: Hutton E L (1941), Early Results of Prefrontal Leucotomy, Lancet, July 5, p6.

VB’s outcome
1941
‘Several severe raids occurred while the patient was in hospital but he paid little attention and was in no way distressed. He also lost the nightmares with which he used to be troubled. He describes the change from his former miserable introspective brooding to his present carefree outlook as the most important thing that has ever happened to him.’ ¹

1947
‘He has had several jobs, but seems to have been very casual about his attendance and the standard of his work, and it is probably for this reason that he is unemployed. His family are finding it impossible to live with him. He is very lazy and rarely goes out. He flies into rages over trivialities and is sometimes violent. His wife writes:
““When I fall or cut myself he simply laughs about it; in fact, it is the only time he laughs, when anyone is in distress or hurt.” He attends to his own toilet and is fairly particular about his external appearance, but he is by no means as clean as he was, and his daughter thinks he has not had a bath since the operation. The patient himself is perfectly self-satisfied; says he gets along very comfortably with the family, and is not in the least disturbed by having no job.’ ²

1. Hutton E L (1941), Early Results of Prefrontal Leucotomy, Lancet, July 5, p.6.
Life article
During World War 2 some conscientious objectors in the US were required to work as attendants in large state mental hospitals. Many were shocked at the standards of care they witnessed and some kept records. When the war ended a group in Cleveland, Ohio, took the information to a leading churchman who showed it to the state governor. Life magazine's article on the subject, with photographs taken in Cleveland and Philadelphia, caused a public outrage and reforms followed.
(Source: Pressman JD, Last Resort: Psychosurgery and the Limits of Medicine, Cambridge University Press, 1998.)

Life quote
‘Beatings and murder are hardly the most significant of the indignities we have heaped upon most of the 400,000 guiltless patient-prisoners of 186 state institutions.

We feed thousands a starvation diet, we jam-pack men, women and sometimes children into 100 year old fire traps in wards so crowded that the floor cannot be seen between rickety cots. Hundred spend 24 hours a day in a state of filthy nakedness.

Restraint, seclusion and constant drugging of patients became essential in wards where one attendant must herd 400 mentally deranged charges.’

In March 1943 the Royal Medico-Psychological Association (the forerunner of the Royal College of Psychiatrists) devoted a quarterly meeting to leucotomy. In this brief paper Frederick Golla gave his rationale, and justification, for using brain damage as a treatment for severe mental illness.

Frederick Lucien Golla trained in neurology at Queen’s Square and pursued a conventional career until the First World War. He saw action in France and became intrigued by ‘shell shock’, believing he could predict who in his company would break down. Serving on War Office committees, he met Sir Frederick Mott an authority on ‘battle neurosis’. After the war he undertook a series of experiments, at the Maudsley’s Central Pathology Laboratory (directed by Mott) looking for physiological markers of vulnerability to neurosis. He flitted from one technique to another but the work was innovative, Mott was impressed and in 1921 Golla was invited to give the prestigious Croonian Lectures, his title: ‘The objective study of neurosis’. When Mott retired in 1924 Golla was appointed his successor and later made Professor of Mental Pathology at London University. In 1938 he was appointed Director of the new Burden Neurological Clinic, in Bristol. Funded by a charitable trust, ‘The Burden’ included wards, an operating theatre and laboratories, and became a leading research centre at the interface between neurology, psychiatry and psychology. Golla was its director until 1959.
Egas Moniz studied neurology in Paris at the beginning of the last century and on his return to Portugal obtained an academic post in neurology. He was also elected as a member of parliament and during the First World War rose to be Foreign Secretary. In the 1920s he returned to medicine and academia, as a professor of Neurology in Lisbon, and in 1927, after a year of experimentation on dogs and cadavers, carried out the world’s first cerebral angiogram. Angiography remained his main academic interest for the next twenty years and his department published more than 150 studies. He was also in neurology private practice and in the 1930s this often included people with intractable anxiety, OCD and depression. He invented prefrontal leucotomy, a procedure based entirely on his theories of brain malfunction, as a way of giving them some relief. In 1939 an outpatient who had become paranoid shot him 6 times in the chest and arm. He survived and was back at work 6 months later. In 1949 he shared the Nobel Prize for Medicine, awarded for prefrontal leucotomy rather than his work on angiography. (Source: Zbigniew Kotowicz, Psychosurgery: the Birth of a New Scientific Paradigm, Centre for Philosophy of Science, University of Lisbon, 2012.)

Effie Lillian Hutton qualified at the Royal Free Hospital in 1928 and trained in psychiatry and moved to Horton Hospital, the national centre for malaria treatment of neurosyphilis, participated in trials and published on the subject. Frederick Golla was responsible for psychiatric training and research in the capital, and also monitored all malaria treatments. In 1940, following his move to the Burden Neurological Clinic, he appointed Hutton as his Clinical Director and gave her the job of selecting patients for leucotomy and publishing the results. She produced several papers, latterly focusing on adverse effects as. She became increasingly concerned about the effects on personality, particularly foresight and creativity. By the 1950s her interest had shifted to psychotherapy for neurosis, a practice being influenced by Jung and her Christian beliefs. She died of breast cancer in 1956 aged 52. In his obituary described her ‘a rare type of mind…adored by her patients and all her colleagues’.

Walter Freeman studied in Medicine at Johns Hopkins and neurology in Europe. He returned home when his grandfather, a famous physician, secured him a post as head of a new pathology department at St Elizabeths, Washington D.C.’s 4000 bed mental hospital. Over the next decade he performed over 1000 post mortems and published a book on neuropathology whilst also working in neurology private practice. He met Egas Moniz at the London conference and received a signed copy of his monograph the following year. He approached James Watts, a recently qualified neurosurgeon and they embarked on the first US series of leucotomies. Their book Psychosurgery was published in 1942. After 1946 Freeman focused on the ‘trans-orbital’ approach, procedure he first carried out with an ice-pick. Estimates of the number he performed vary from 1700 to 3000, including about 20 children. He remained in touch with many of his leucotomy patients via Christmas cards and letter, and in his retirement visited them in his campervan. (Source: Jack El-Hai, The Lobotomist: A Maverick Medical Genius and His Tragic Quest to Rid the World of Mental Illness, John Wiley & Sons, 2005.)
The Moniz monograph
In the summer of 1936 Egas Moniz sent signed copies of his Monograph to selected colleagues. The copy he sent Walter Freeman prompted him to trial the operation in the United States. 40,000 operations were carried out there over the next 30 years. This is the signed copy Moniz sent to Dr Riddoch, Neurologist at Queens Square.
(Source: Pressman JD, Last Resort: Psychosurgery and the Limits of Medicine, Cambridge University Press, 1998.)

Public records office data and Bevan meeting
The public records office at Kew keep a government file on prefrontal leucotomy. It includes this hand written note, prepared in response to an M.P.’s question listing precise figures for leucotomy operations from 1948 to 1952, the first five years of the NHS.

<table>
<thead>
<tr>
<th>Year</th>
<th>Women</th>
<th>Men</th>
<th>Deaths</th>
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<tr>
<td>1948</td>
<td>896</td>
<td>611</td>
<td>38</td>
</tr>
<tr>
<td>1949</td>
<td>945</td>
<td>577</td>
<td>43</td>
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<td>1950</td>
<td>900</td>
<td>497</td>
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<td>860</td>
<td>499</td>
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</tr>
<tr>
<td>1952</td>
<td>868</td>
<td>573</td>
<td>62</td>
</tr>
</tbody>
</table>

In June 1948 John Fulton, Yale physiologist and psychosurgery enthusiast dined with Nye Bevan, the politician responsible for creating the NHS. Fulton recorded the meeting in his dairy:

To my surprise he was completely informed concerning recent developments and was particularly interested in the considerable economic significance of the operation. He stated that there are 330,000 beds for mental cases in Great Britain and that if, through lobotomy, we could empty even ten percent of them it could alter the whole hospital organization problem under the new [NHS] Act.

The NHS began in July 1948.