



Historical

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Mathematics in detention

Imagine you are an academic, or a university student, or a senior secondary-school student living in country Γ . Regime change takes place in Γ , with the result that you find yourself categorised as second-class citizen. You have to give up any hope for a further career in your own country, where your existence has come under threat. Somehow or other, you manage to reach country B, which offers you refuge. In B, you may apply yourself to work of national importance as a scientist or as an educator, or you may continue your studies at school, college or university. Some time later, Γ and B are at war with each other, and when the conflict heats up, the government of B decides that you, as you are still a citizen of Γ , are a security risk and eventually confines you to a detention camp. Such camps, however, divert military manpower and drain the country's resources. Consequently, the government of B has you deported to country A. In A, you spend another year or two as an internee. What about your career or education now?

In the following account, only a small part of a much larger story, an attempt is made to demonstrate that one should never give up hope and to show how mathematics can play a momentous role in keeping one's hope alive. The events known as the *Dunera Affair* are of incisive significance to Australian history, not least to intellectual history. Its documentation has grown during the last three decades [1], albeit certain restrictions of access to source material [2]. During the first week of September 1940, "one of the greatest cargoes of talent and intellect ever to enter this country" [3], reached Melbourne and Sydney after a traumatic passage aboard the

12615-ton hired military transport *Dunera* that had begun in Liverpool on 10 July. Leaving women behind, the vessel carried more than two thousand five hundred men. They had lived, and many had worked or studied, in Britain for some time after the political developments visiting Central Europe during the early nineteen-thirties had driven them away from their homes. At the outbreak of the war, they had been classified by the aliens tribunals in three categories. Those deemed to be security risks and therefore labelled category A, less than 0.8 percent of all refugees, were interned immediately, while aliens of the other two categories were viewed as refugees from Nazi oppression, and generally considered by the British people sympathetically [4]. After the German armies had invaded Belgium and the Netherlands, orders were issued that all enemy alien males between sixteen and sixty be interned, irrespective of their classification. Soon, the deportation to Canada and Australia of more than 11000 internees succeeded these measures. The internee Hans Eichner, later a professor of German literature in Canada, remembers that, aboard the *Dunera*, Felix Adalbert Behrend [5] (Dr.phil., Berlin 1933, Dr.rer.nat., Prague, 1938), a not yet thirty-year old mathematician, lectured on number theory and on the theory of relativity. For taking notes of the lectures, soup-can labels were used [6], but it is not impossible that Behrend's audience was dazed by the bromide added to the food [7].

After the *Dunera's* landings, the internees were taken to compounds at Tatura, Victoria, and at Hay, NSW (Camp 7 and Camp 8). A wide range of occupations

was represented by the internees, including university lecturers, schoolteachers, and younger men with professional aspirations [8]. Among the internees in Compound 2, No.7 Camp, Eastern Command, Hay, there were

30 teachers and lecturers, 42 students (general and specialists), 12 students (technical), 31 mechanical engineers and 27 electrical engineers [9].

As the resumption of the students' education was an urgent need, senior fellow internees began to organise camp schools [10]. One internee of Hay Camp 7 marked in his diary on 15 October 1940: "Camp school opens" [11] The impressive school organisations the internees were building up is reflected in a report prepared less than five months later by a representative of the International Red Cross, Mr G. Morel, who had visited the Hay camps:

... the school of the German camp no.7 has 101 courses, comprising 181 classes and is attended by 560 students. The studies pertain to languages, sciences, technology, agriculture, arts and religion. The German camp no.8 has 75 instructors teaching 110 subjects to 380 regular students and 400 listeners. The courses comprise English, French, Italian, Spanish, Latin, Greek, Hebrew, Esperanto, music, arts, geography, mathematics, Physics, chemistry, biology, medicine, psychology, botany, zoology, agriculture, mineralogy, economic and political sciences, and the civics [12].

Being a driving force in the running of the school at Hay Camp 7, Behrend convened a meeting at Mess Hut I of twenty-six teaching staff in his *Fachschaft Naturwissenschaften* [Science Section] for 10 December 1940. The agenda contains a report on the current semester and a plan for the next [13]. It should be noted that three weeks earlier, Behrend's release from internment had been authorised [15] at the instance of the British mathematicians G.H. Hardy,

J.H.C. Whitehead and other prominent colleagues [16]. Yet Behrend was to remain interned until being "released on parole" on 9 March 1942 [17].

Mathematics subjects were taught on a broad scale, and the variation in mathematical background of the students was taken into account. In Hay, the teaching load fell largely on Behrend, who lectured to the more advanced students, and on Stefan Petö [18] (born 1907), who was mainly looking after school-mathematics. Eichner remembers:

Apart from numerous courses for beginners on algebra, mechanics etc., there were lectures on group theory, matrices and tensors, vector analysis, projective geometry, differential equations, Fourier analysis ... [19].

Behrend comments that the standard of the camp school lectures on

infinitesimal calculus, differential equations, vectors, determinants and matrices, vector and tensor analysis and on functions of a complex variable ... would correspond to a second year university course [14].

Written in pencil by a fellow internee, was this note:

Infinitesimal Calculus, Inequalities, Rational nrs., Dedekind's [sic] and Cantor's Theories of irrational nrs., pts of accumn., limits, sequences, convergence. Real functions, continuity, continuous limits, functions of functions, Inverse functions, Integral as a sum, Riemannian Integral, integrability, mean value theorem, log & exponential trigonometric & hyperbolic functions, Systematic integer? Differentiation, Differentiability, Leibnitz, The Rolle's Theorem, Mean Value theorem, maxima & minima [14].

Behrend wrote numerous recommendations for his students that confirm the standard at which mathematics was taught in his section. E.g., a letter drafted by Behrend on behalf of the internee Friederich Ignaz

Mautner, a budding mathematician [20], states:

To whom it may concern. I gladly take this opportunity of confirming that Mr Frederick Mautner has been my student in the subjects of Pure and Applied Mathematics since September 1940. He attended courses on Infinitesimal Calculus, Differential Equations, Vectors, Determinants and Matrices, Vector and Tensor Analysis, Functions of a Complex Variable, the standard of which would correspond to a second year university course. In addition he has been studying on his own various mathematical and physical topics such asDuring this period I have constantly been in touch with Mr

Mautner; I have closely followed his studies, and feel convinced that he is perfectly able and qualified to enter for ... [14].

On the back of a tin label — the tin was once filled with 2 lbs., 2ozs. of “enchantment brand, finest quality pineapple slices” — Behrend drafted plans for a lecturing program in chemistry and medicine. On similar labels, he ran over a differential equation. Behrend used the back of a greeting card (bearing the text “President CIGARETTES . . . TO . . . FROM” and showing wattle and gum flowers) for sketching a timetable of mathematics lectures at camp school [14]:

| | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
|-------------------------------------|------------------------|-----------------|-----------------|-------|-------------------|---|-----|
| 9 ³⁰ – 10 ³⁰ | Differential equations | Vector analysis | Calculus | | Vector analysis | 8 ¹⁵ – 10 ¹⁵ Quiet Hut | |
| 10 ³⁰ – 11 ³⁰ | | | | | | | |
| 11 ³⁰ – 12 ³⁰ | Calculus | Matric II B | Higher geometry | | Higher geometry B | | |
| 4 ³⁰ – 5 | | | | | Matric B | | |
| 5 – 6 | Matric II | | B | | | | |
| 8 – 9 | Choir | | Choir | Choir | | | |
| 9 – 10 | | | | | | | |

For the camp schools, a major problem was the availability of or the access to school materials. Eichner notes that especially the humanities suffered from the scarcity of books, while he argues:

... it was easier in the area of mathematics and its immediate applications. Attractiveness and elegance of the lectures were enhanced by the circumstance that teachers who, for the first few months, had no teaching aids at all at their disposal, were forced to derive everything from the basic principles, so that the Systematik became even more lucid [19].

Nonetheless, the book shortage was felt all over the camp school even though, as Eichner recounts,

many of the internees had brought books with them and made them available to others, so that the camp library soon had several hundred volumes [21].

A table among Behrend’s notes documents a rather short list of mathematics books or books about mathematics lent by internees (name of owner, hut number, book title, author):

| | | | |
|---------------|----|-----------------------------|-----------------|
| Fränkel | 29 | Mathematics for the million | Lancelot Hogben |
| Freuthal | 27 | Elementary Calculus | Durell |
| Praminger | 27 | Von Pythagoras zu Hilbert | Colerus |
| Herbst | 33 | Science in the modern world | Whithead [sic] |
| Steckelmacher | 28 | Euklid I-VI, XI | Hall, Stevens |
| | | The world of science | Taylor |

Behrend kept a pencil-written “book wish list”, in which its mathematical section, referring to authors, books and specific areas, reads:

| | |
|-----------------------|-------------------------------|
| MILNE | Projective geometry |
| HARDY | Pure Math. |
| BAKER | Principles of Geometry 3 vol. |
| WHITTACKER AND WATSON | Modern Analysis |
| WHEATHERBURN | Differential Geometry |

only Melbourne:

| | |
|-----------------|-----------------------------------|
| MICHEL & BELZ | Elements of Mathematical Analysis |
| COURANT-HILBERT | Methoden der Math. Physik |
| FRENKEL | Wave-Mechanics |
| EDDINGTON | Mathematical Theory of Relativity |

Vectoranalysis

Adv.

Calculus

| | |
|---|---|
| Analysis | Advanced Calculus. (Hardy) (Whitacker) |
| Geometry | Analytic treatment of proj. geometry groups of transformations Principles of axiomatic geometry Differential geometry Mc(?), Topology, Tensors |
| Algebra | Higher algebra (theory of groups, matrices) Theory of numbers Theory of probability |
| Relativity, Courant-Hilbert, Quantum theory | expensive. [14] |

The book issue was first taken up by the Australian Student Christian Movement (A.S.C.M.), main mover being its secretary Miss Margaret Holmes [22]. First, however, intelligence had to be gathered:

The internees arrived in Australia early this month and appear to have been distributed between Western Australia, South Australia, Victoria, and New South Wales (probably Hay) camps. ... the N.U.A.U.S. people have the name of one student and through him we may be able to trace others... [23].

In late October 1940, serious hindrances continued to occur, as Margaret Holmes reported:

About interned students - a letter is going (or has gone) from the committee here to all whose names we have, and a beginning is being made with collecting books. ... books etc, might be sent direct from the centre where they are collected. And I think local committees could deal with the question of borrowing from libraries better than we could from there. I don't really think there is much hope of that though; Melbourne University says it is impossible as they don't even lend to their own students [24].

On 1 November Margaret Holmes summarised:

In each compound a school has already been established. The list I sent you the other day is for Compound I. We now have a much more detailed list of the needs of Compound II which I am having copied and will send next week... The range of books and subjects is so wide that almost any reasonably modern school or University book will be acceptable... [25].

And on 22 November she notified an internee at Hay:

We have just despatched four cases of books — two cases to Compound 1, and two to Compound 2. Some of them may be old and some rather elementary but we trust

that you will find amongst them several of use to students [26].

Help by the Commonwealth appears to have been slower. In an official report of his visit to Hay on 6 November 1940, Chief Justice Jordan wrote:

The education of the internees presents a serious problem. There are a large number of young persons whose general education is not complete, and who have also at present no opportunity of being trained in any trade... There is a large number of young men who were undergraduates at English Universities at the time of their internment; and they are anxious to have an opportunity of continuing their studies... Assistance to the campschools is asked for in the supply of such material as blackboards, chalk, writing paper, pencils, pens, ink, books and periodicals [27].

E. Sydney Morris, President of the European Emergency Committee, Sydney, noticed upon an inspection at Hay on 11 November 1940:

There are no blackboards, chalk, nor even paper and pencils. Text-books of all kinds are sadly needed [28].

On 21 January 1941, E. Sydney Morris reported:

... a rigid prison-like attitude now pervades the whole camp [in Hay]... The conversation takes place in presence of a guard and one is separated from the internees by small-mesh wire netting... it is understood that this arrangement now applies to all internment camps in Australia... A considerable number of books of all kinds has been received and has facilitated the educational classes in operation. Advanced textbooks are still needed... [28].

The camp schools, however, kept on going despite all adversity, not least due to self-help. Early 1941, Behrend had meticulously drawn up a budget for his Science Section:

Camp-School
Science
Budget

| | | |
|----------------------------|-----|------------|
| Exercise books | | £ - .10 |
| Letter pads | -.2 | |
| Ink | -.2 | |
| Pencils and rubber | -.2 | |
| Drawing paper | -.2 | |
| Sundries | -.2 | -.10 |
| Matric students (material) | | -.10 |
| pocket money for teacher | | -.10 |
| borrowing library | | <u>-.5</u> |

£2.5 per week
£9.- " month
£4.- from camp authorities
£5.- remainder that has to be raised
through voluntary contributions.

Not included are extra expenses such as books, compasses, rulers.

A collection will take place each month beginning with March.

Material to be distributed to all teachers and needy students by Herr Solmitz [29] on the basis of a certification signed by the head of the Section or the teacher, respectively.

Contribution lists to follow [14].

The International Red Cross report of early March simply states:

The two German camps [at Hay] each have a library of 1200 to 1400 books of which approximately 900 are text books... The internees have permission to buy journals and periodicals of their own choice [30].

Essential for many students' future careers, whether they thought of returning to England or of remaining in Australia, was sitting, and passing, the matriculation examinations. On 28 October 1940, a letter to Chief Justice Jordan was signed in Hay, Camp 7, by the internees Gerhard Martin Julius Schmidt (Oxford) and Felix Schwarz (Manchester). It draws attention to

46 students from various universities in the UK at present interned in Compound 2, including men from all faculties (Arts, Languages and particularly Natural Sciences, Engineering and Medicine). Many would

like to continue their studies at Australian universities [31].

On 26 February 1941 the following letter was sent to Canberra:

FROM: The Camp School, Matriculation Course, Camp 7, Eastern Command, c/o District Censor, 45 Reservoir Street, Sydney

TO: The Under-Secretary of State, Department of Education, CANBERRA

Sir,

A preparation course for the London Matriculation Examination is being held within the Camp School of the above camp. Some forty students are at present being prepared and it is hoped that facilities will be granted for them to sit for their London Matric in June next. I am applying to you on behalf of the teaching staff in order to ascertain whether the Department of Education is the official representative of London University or whether some other educational body has been charged with this duty.

We should be obliged if you would supply us with all the information available on the subject, also if you sent us a syllabus should one be available and the address or addresses of further bodies to apply to. A large number of graduates and undergraduates who all possess the necessary teaching qualifications have taken charge of the respective courses. Thanking you in advance,
We are, Sir,
Your obedient servants,
(SGD) F. BORINSKI [32]
Principal of the Camp School,
Camp 7
(E40525) K. Reichmann, A.M.J. Inst.E. S.I. Mech.E.
(Matriculation Course) [33].

On 12 February 1941, at the beginning of the new semester, matriculation classes in mathematics were started by Behrend, who organised them in two groups: Mathematics II and Mathematics R [repetition]. One of the participants in Mathematics II was Julius Weingeist, known better to us under his naturalised name Julius Guest, who later pursued a successful mathematical career at the University of Melbourne and the RMIT. The “repetition course” was attended by: Hans Eichner, his brother Fritz Eichner (Francis Oakes), who was to distinguish himself as an engineer in the UK, Kurt Henle (Keith Henley), who was to become a gastroenterologist in the USA, Friederich Mautner, and Mendel Weisser, now best known as econometrist at the University of New England [14]. Beside lectures, there were “home”-work and tests. On 10 April 1941, e.g., the third test in the matriculation course subject Advanced Mathematics, a two-hour examination, took place. It had two sections: one headed “Algebra”, the other “Coordinate Geometry”. Each section consisted of four questions, and students were instructed to attempt not more than three questions in each section. While the algebra questions addressed combinatorics and polynomials, the geometry questions were about straight lines and circles.

Question 4 of Section 1 reads:

If x and y are two real quantities connected by the equation

$$9x^2 + 2xy + y^2 - 92x - 20y + 244 = 0 \quad (1)$$

then will x [sic] lie between 3 and 6, and y between 1 and 10.

The top mark, scored by Guest in another such test held during May 1941, was 84/100 [14].

Other internees were being prepared for the School Leaving Certificate examinations. Here is an excerpt from one of their tests:

If ${}_nC_r$ denotes the number of combinations of n things taken r together, prove that

$${}_{n+2}C_{r+1} = {}_nC_{r+1} + {}_nC_{r-1} + 2{}_nC_r. \quad (2)$$

At a meeting of a Debating Society there were 9 speakers; 5 spoke for the government, and 4 for the opposition. In how many ways could the speeches have been made, if a member of the government always spoke first and the speeches are alternately for the government and the opposition?

Form the quadratic equation whose roots are $5 \pm \sqrt{6}$.

If the roots of $x^2 - px + q = 0$ are two consecutive integers, prove that $p^2 - 4q - 1 = 0$ [14].

Whether the student internees would be allowed to sit the matriculation examinations was not yet clear. On 29 May 1941, the British Home Office was informed that Mr [E. Sydney] Morris had

made a rather adverse Report about the lack of materials & c., for educational purposes in the Camps. A reply from Australia had been received today: “Your telegram 19th May 2366 Internees. Extensive educational projects have been in operation at Hay where attendance at classes exceeded 1400 a day. Equipment and books partly provided by Welfare Society supplemented by Commonwealth. £200 worth text books just supplied by Commonwealth. Will take action to ensure that at their new Camp

internees are provided with necessary facilities to continue studies” [34].

Indeed, the Hay camps were about to be cleared. While most of the internees were moved to Tatura, about 400, including Felix Behrend, were given temporary accommodation at a camp in Orange. One of his exercise books labelled *Second and third term 1940/41 (Hay, May 1941; Orange, June-July 1941)* shows Behrend’s occupation with the Bessel DE, the wave equation and spherical functions [14]. In August, the Orange internees joined the others at Tatura, and the matriculation courses were resumed. On one of Behrend’s Tatura class lists, there is Walter Freiberger, who was,

after taking out a BA Hons and an MA degree at the University of Melbourne, to receive a PhD degree from Cambridge; three years before and three years after his studies at Cambridge he worked as Senior Scientific Research Officer for the CSIR Division of Aeronautics (later Aeronautical Research Laboratory, Department of Defence, Melbourne) and as a part-time lecturer at the University of Melbourne. His subsequent career at Brown University culminated in a chair of applied mathematics and another of community health [35].

In Tatura, one camp school, the *Collegium Taturense*, had already been in existence since November 1940. But that is a different story [36].

References

- [1] Extensive documentation and a bibliography on the subject can be found in P.R. Bartrop (ed. with G. Eisen), *The Dunera affair: a documentary resource book* (The Jewish Museum of Australia and Schwartz & Wilkinson Melbourne 1990).
- [2] *Ibid.*, p. 24.
- [3] C. Pearl, *By Dunera a cargo of talent*, Readers Digest (December 1973), 99–105.
- [4] Bartrop-Eisen, p.19.
- [5] Behrend later introduced modern general topology to the University of Melbourne. For a short biography of Behrend and an appreciation of his mathematical work, see T.M. Cherry and B.H. Neumann, *Felix Adalbert Behrend*, Journal of the Australian Mathematical Society **4** (1964), 264–270, reprinted in D.S. Meek, R.G. Stanton (eds.), *Selected works of B.H. Neumann and Hanna Neumann* (Charles Babbage Research Centre Winnipeg 1988), vol. 6, 1338–1344. For further details, see also H. Lausch, *Felix Adalbert Behrend and Mathematics in Camp 7, Hay, 1940-41*, Australian Jewish Historical Society Journal **14** (1997), 110–119.
- [6] Hans Eichner, *Internierungslager und Lageruniversität*, in: E. Schwarz and M. Wegner (eds.), *Verban-nung: Aufzeichnung deutscher Schriftsteller im Exil* (Christian Wegner Hamburg 1964), 115–121.
- [7] Account of the internee Karl Guttman, in: Bartrop-Eisen, 169–176.
- [8] Bartrop-Eisen, 385–388.
- [9] Australian Archive [cit. AA] MP508/1 255/714/64. Engineers were also among those camp school teachers who taught mathematics.
- [10] Internees taken to other locations also set up camp schools. The Nobel Prize winner Max F. Perutz provides a fascinating account of the camp university in Quebec, which he had organized, with fellow internees Hermann Bondi teaching vector analysis and Klaus Fuchs teaching theoretical physics. I thank Mr Jobst Radok for bringing this to my attention. Another well-known camp school had sprung up on the Isle of Man. The number theorist Kurt Mahler spent three months as an internee on the Isle of Man, during which he received a DSc from the University of Manchester.
- [11] G.M. Sondheim, *Camp Diary Hay*, p. 65. I thank the Tatura & District Historical Society and its Wartime Camps Researcher Mrs. Lurline Knee for giving me access to this documentation. The kindness of several former internees in providing information must be acknowledged, amongst them its president Mr Mike Sondheim, and further: Mr Henry Lippman, Mr Paul Altmann, Mr Peter Tikotin, Mr Herb Barber, Mr Harry Nagler, Mr Hans Marcus, Dr Hans Ewald, Mr Moshe Rimon, Mr Henry Teltscher, Dr Rudolf Strauss, Dr Fred Parkinson, Mr Fred Lowen, Mr Peter Dane, Dr Kurt Ostberg, Professor Hans Eichner, Mr Francis Oakes, Dr Gerhard Hamburger, Professor Fred Gruen, Mr Bern Brent, Professor Klaus Loewald, Dr George Strauss, Professor Walter Freiberger, Professor Uwe Radok, Professor Rainer Radok, Mr Julius Guest, and Dr Mendel Weisser.

- [12] Transl. from *Rapport sur les visites aux camps d'internement de HAY*, Nouvelle-Galles du Sud, 3-6 March 1941. AA A2908/13 P22 PART4.
- [13] The agendas were circulated to and signed by: Stefan Petö (Mathematics), Hans Peter Ernst Lehner (Geology), Dr Lorenz Frank (Physics), Dr Walter Leschnitzer (Medicin), Rudolf Strauss (Physics), Dr Günther Maximilian Weiss (Medicin), Ing. Franz Beer (Machine Engineering), Dr Heinz Danziger (Medicin), Dr Alfred Monath (Chemistry), Hans Peter König, Georg Haim, Dr Josef Deutsch (Medicin), Felix Schwarz, Bruno Salomon Harrens, Bernhard Cinader, Dr Rudolf Danziger (Medicin), Magister Ernst Günther Michaelis (Pharmacology), Gerhard Martin Julius Schmidt [14]
- [14] University of Melbourne Archive, F.A. Behrend's literary remains. I thank Professor J.H. Rubinstein, Melbourne, for drawing my attention to the "Behrend Nachlass", and the Archive and Mrs. Cecily Close for facilitating access to these documents.
- [15] Cablegram sent on 20 November 1940 to the Prime Minister's Department from the High Commissioner's Office, London; AA A2908/13 P22 PART 3A.
- [16] Cherry and Neumann. Behrend [14] mentions in one of his curricula vitae: "My release from internment was granted by the Home Office in London on recommendation of the Advisory Committee set up by the Royal Society on behalf of scientists with outstanding qualifications."
- [17] AA MP1103/2/0, WOB 47: 39000-39294, GERMAN AUSTRALIAN MILITARY FORCE REPORT ON INTERNEE E39119; AA A435/1, Item No 44/4/6687, Memo of Department of the Interior, dated 8 June 1945: "... Behrend was released from internment in March 1942 to take up the position of Tutor of Mathematics at the University of Melbourne. ..." On a filled-in form of the Assistant Inquiry Officer of the Department of the Interior, dated 22 December 1944, it is stated: "FAB single. ... state of health: good. Has no intention of leaving Australia." Behrend's referees for his naturalization were the mathematicians Cherry and Bullen.
- [18] Petö was born in Budapest and moved to Vienna, from where he migrated to England in Autumn 1938. There, he became one of the first medical statisticians primarily employed in giving statistical advice to medical and biological research workers. I thank Dr Tim Peto, Oxford, for this information.
- [19] Eichner, p. 118.
- [20] Mautner had already studied for one year at Durham. There he took a BSc after his return in 1943. He then continued his career in Belfast, Dublin, Princeton, MIT, Pennsylvania State and Johns Hopkins.
- [21] [19]. Cherry and Neumann note: "The students were prepared ... without textbooks because none were available: in spite of this, or because of this, the teaching was highly successful."
- [22] The Society of Friends, foremost Mr Alfred C. Clarke and Miss Margaret Pierce, also took a very keen and active interest in the internee's fate and future. See La Trobe Collection, Library of Victoria, MS 8782, Box 1530/3, quoted in Bartrop-Eisen, pp. 243–245.
- [23] Letter to Rev. D.A. Garnsey, Goulbourn, N.S.W, dated 16 September 1940. National Library of Australia, Records of the Australian Student Christian Movement, Series 4 [cit. NLA ASCM]. I thank Mr Graeme Powell for facilitating access.
- [24] Letter to Rev. Frank G. Engel, Glebe, NSW, dated 21 October 1940; NLA ASCM.
- [25] Letter to Engel; NLA ASCM.
- [26] Letter addressed to "Mr Gerald Arendt, No. 7643, Camp 8, Hay NSW, C/o District Censor, 45 Reservoir Street, Sydney NSW"; NLA ASCM.
- [27] AA MP508/1 255/714/37.
- [28] AA A2908/13 P22 PART 4.
- [29] Carl Felix Solmitz, an internee.
- [30] Transl. from *Rapport sur les visites aux camps d'internement de HAY*, Nouvelle-Galles du Sud, 3-6 March 1941. AA A2908/13 P22 PART4.
- [31] AA MP508/1 255/714/64.
- [32] Friedrich Franz Peter Iwan Borinski (b. 1903) was originally teacher in Berlin(AA MP1103/2/0, WOB 47: 39000-39294, GERMAN AUSTRALIAN MILITARY FORCE REPORT ON INTERNEE E39200.
- [33] AA MP508/1 255/721/165.
- [34] AA A2908/13 P22 PART 4.
- [35] Walter Freiberger, *Curriculum vitae* (revised: November 1995). Another internee, who became a mathematician, was Martin Hugo Loeb (b. 1921). Loeb taught mathematics at the University of Leeds and then moved to the University of Amsterdam.
- [36] Mathematically, this story relates to Rainer Radok, who was to become a leading oceanographer and to play an important role for Australian applied mathematics, and Uwe Radok, who was active as a meteorologist at the University of Melbourne.