

Canadian War Museum Finding Aid
Arthur Edward Cleeve Horne Collection
Accession number 20010021-003

Dates: 1936 - 1945

Extent: Documents: 90 cm (3 boxes): typescript and handwritten.

Biographical Sketch: Born in 1912 in the British West Indies, Arthur E Horne OC, OOnt., taught camouflage techniques during the Second World War at the No.1 Canadian Camouflage School. He was also a prominent artist, having painted over 400 portraits in his career (1928 – 1991), including those of Alexander Graham Bell, Claude Bissell, Bora Laskin, Pauline Mills McGibbon and John Diefenbaker.

Horne attended the Ontario College of Art and Design (OCAD) in Toronto from 1931 - 1934. He studied with Dorothy Dick, a British sculptor in 1927 as well as with John Russell from 1934 - 1935. He was a member of the Ontario Society of Artists, and its president from 1949-51, as well as a member of the Royal Canadian Academy of Arts and the Sculptor's Society of Canada.

In 1934 Horne won the Lieutenant Governor's Medal for Painting at OCAD – he was its first recipient. He went on to win numerous other awards including the Royal Architectural Institute of Canada's Allied Arts Medal in 1963, the Royal Canadian Academy of the Arts Medal in 1965, and the Ontario Society of Arts Award in 1982. He became a member of the Order of Ontario in 1987, and was made an Officer of the Order of Canada in 1997. Horne passed away in 1998.

Language: Textual material in the fond is in English

Scope and Content: This collection consists of 3 boxes of materials pertaining to camouflage, including class and lecture notes, reports, tests, photographs, essays, maps, diagrams, technical drawings, German and Japanese camouflage techniques, memos, manuals, magazines, articles and notes on war games. Some of the notes and reports are from the Pratt Institute; Office of Civilian Defense, Washington; The Engineer Board, Camouflage Section, Fort Belvoir, Virginia; US Engineers Office, California; and the Canadian Camouflage School.

Arrangement: This finding aid has been arranged numerically by item number within each box. All material can be found in file numbers 58C 3 19 through 58C 3 21 inclusive.

Detailed Listing:

BOX 58C 3 19

Item number	Contents
1	26 February 1936. Department of National Defence (DND) HQ circular letter no. 15. Typed, nine-page document regarding the

Item number	Contents
	rules and regulations, functions, management and organization of the Officer's mess. DND HQ, MD No. 2, 185 Spadina Ave., Toronto, Ontario, prepared the document.
2	December 1936. Black and white map of the Pacific Ocean showing North and South America, Australia and Southeast Asia. 65 x 90 cm (17.5 x 24 cm folded). Mercator projection. Time zones are given along the bottom of the map. Published by the GSGS [General Staff. Geographical Section] 611-5.
3	1938. Topographical map of New Westminster, BC. 60.5 x 75.5 cm (19.5 x 31 cm folded). Published by Department of Mines and Resources, Surveys and Engineering Branch, Sheet no. 92 G/2.
4	1939. Topographic map of Ontario, Mallorytown sheet. 42 x 62 cm (16 x 29.5 cm folded). Published by DND, GSGS, sheet no. 31B/5. Scale is 1 inch to 1 mile. Map also shows highway routes.
5	1939. Two topographical maps of Metchosin. 65.5 x 91.5 cm (19.5 x 23 cm folded). Published by DND, GSGS, map no. 415b. The scale is 1:25,000.
6	1939. Topographic map of Victoria BC, showing area near Equimalt and Albert head. 66 x 91 cm (17 x 32.5 cm folded). Published by DND, GSGS, map no. 415a.
7	<p>1939-1943. Envelope titled "Camouflage and Field Craft. C Horne, 2/Lt, RCASC [Royal Canadian Army Service Corps] (R) Toronto." Envelope contains an assortment of materials including:</p> <ul style="list-style-type: none"> • Typed notes on Motor Transport Camouflage. • 8 typed pages of notes with handwritten corrections and additions concerning camouflage. Papers are titled "D"-Camouflage. • 5 sets of typed notes titled Camouflage notes for RCASC. • 6 pages of typed notes with handwritten corrections additions on the importance of camouflage and the true meaning of the word. • Typed lyrics for the song "Road to the Isles," the Pacific Command version. • Inspection report on US ordnance prismatic binoculars signed by Gordon Best. • Handwritten results for the Map Reading test, NCO Regt. School. • Handwritten notes and diagrams of the chemical makeup elements. • Newspaper article by Gordon Best: "Industrial Camouflage – To protect your plant." • Newspaper article "Magicians add new tricks to war. Dummy guns duped the Duce men." • Handwritten notes and diagram on visibility.

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	<ul style="list-style-type: none"> • 6 copies of a hand-drawn diagram titled “Installation Camouflage”. One of the diagrams has been coloured. • Hand drawn, colour diagram of a map enlargement of the university area in Vancouver. • 1939, 2 maps of Victoria, BC, showing the area near Esquimalt Harbour and Albert Head. Published by the DND GSGS, map no. 415a. • 1939, Topographic map of Saanich, BC, 63.4 X 89 cm. Published by DND, GSGS, map no. 415d. • Topographic map of Vancouver North, BC. Published by Department of Mines and Resources, Surveys and Engineering Branch, sheet no. 92G6
8	<p>September 1941. Siting of Hutted Camps for Concealment, Sheet No 1. 54 x 76.5 cm (27 x 38 cm folded). Blue and red diagrams discussing the concealment of buildings.</p>
9	<p>12 December 1941. 2 technical drawings for 155 MM Howitzer. 58 x 58 cm (21.5 x 29 cm folded). One is a mock up replica-scale drawing of a 155 MM Howitzer, while the other is a mock up replica-explosion drawing. Both are from the Military Tactical Camouflage Program, Pratt Institute.</p>
10	<p>12 December 1941. 2 technical drawings for 3-inch anti-aircraft gun. One is a mock up replica-working drawing of a 3-inch anti-aircraft gun while the other is a mock up replica-explosion drawing. Both are from the Military Tactical Camouflage Program, Pratt Institute. The scale is 1 inch to 1 foot.</p>
11	<p>November 1941. Technical Report on the Engineer Operations of the 84th Engineer Battalion (Camouflage) (Army), during the GHQ Directed Manoeuvres of the First Army, November 15-30 1941. The report contains information on the following topics:</p> <ul style="list-style-type: none"> • Missions. • Equipment. • Transportation. • Organization. • Operations. • Observations and recommendations.
12	<p>1941 – 1943. Folder titled “2nd Lieut AEC Horne – Camouflage. Pratt Institute.” Collection of handwritten and typed notes pertaining to military and industrial camouflage containing the following information:</p> <ul style="list-style-type: none"> • Handwritten notes form, bulk, texture, and shadow • Paint • Pratt Institute Camouflage report no. 1 – The Camouflage Program • Pratt Institute Camouflage report no. 2 – Progress of the

Item number	Contents
	<p>camouflage program.</p> <ul style="list-style-type: none"> • Pratt Institute Camouflage report no. 3 – Military tactical program. • Pratt Institute Camouflage report no. 4 – Industrial camouflage. • Pratt Institute Camouflage report no. 5 – Military tactical program. • Pratt Institute Camouflage report no. 6 – The Camouflage program. • Field program – Pratt Institute. • Laboratory program – Pratt Institute. • Industrial camouflage course outline. • Bulletin no. 2 - Manufacturers of camouflage materials. • Pratt Institute final examination (Key copy). A true or false test. • Outline for the lecture course in military tactical camouflage, Pratt Institute.
13	<p>1941-1945. Assortment of typed and handwritten notes pertaining to camouflage from different schools. The information includes the following:</p> <ul style="list-style-type: none"> • Analysis of an industrial area by student Eugene Payor. • Outline for lecture no. 2: “Protective Concealment in Nature” by Richard M. Bennett, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 4: “Aerial Warfare” by James C Boudreau, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 6: “Properties of Surfaces” by Winthrop O Judkins, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 7:”Observation” by James C Boudreau, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 10: “Camouflage Techniques” by William H Brown, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 11: “Analysis of Industrial Areas” by Richard M Bennett, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 15: “Camouflage” by Kenneth Washburn, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 16: “Plant Materials” by Carl F Wedell, Office of Civilian Defence, Washington, DC. • Outline for Lecture no. 17: “Industrial Camouflage” by Stanley White, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 18: “Smoke and Fog” by William A

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	<p>Rose, Office of Civilian Defence, Washington, DC.</p> <ul style="list-style-type: none"> • Outline for lecture no. 19: “Blackout” by William A Rose, Office of Civilian Defence, Washington, DC. • Outline for lecture no. 20: “Cost Estimating” by William A Rose, Office of Civilian Defence, Washington, DC. • Outline for no. 21: “Camouflage Practice” by George S Koyl, Office of Civilian Defence, Washington, DC. • Texturing. The Engineer School, Fort Belvoir, Virginia. • Establishment of concealed bivouac. The Engineer School, Fort Belvoir, Virginia. • Occupation of a bivouac area. The Engineer School, Fort Belvoir, Virginia. • Individual concealment part 1. The Engineer School, Fort Belvoir, Virginia. • Individual concealment part II. The Engineer School, Fort Belvoir, Virginia. • Individual concealment part II. The Engineer School, Fort Belvoir, Virginia. • Camouflage – Against what? Canadian Camouflage School, Vancouver. • Personal concealment. Canadian Camouflage School, Vancouver. • Field craft demonstration. Canadian Camouflage School, Vancouver. • Bivouacs and camps. Canadian Camouflage School, Vancouver. • Camouflage development and training centre notes on paint for the information of camouflage officer, No. 22, 29 – 30, 36, 38. • Notes on paints and painting. • Notes on colouring materials. • Notes on painting of vehicles. • Notes on texturing. • Notes on concealment in street fighting. • Notes on concealment of infantry positions. • Notes on personal concealment. • Notes on the tactical use of smoke. • Notes on nomenclature of methods of painting. • Policy for the camouflage of important installations in Britain. • Extracts from a report by U.S. Camouflage Officer, Overseas. • Camouflage in nature. • First Army Engineer information bulletin no. 7: Stereo

Item number	Contents
	<p>(Military graphics).</p> <ul style="list-style-type: none"> • Department of National Defence specification no. R.C.E./82A: Apparatus camouflage, netting wire, steel wool garnished • Director of Engineer Development memorandum no. 2: Feathered wire netting • Worksheet for courses to be submitted to office, Chief of Engineers. • Cover sheet for a report on the concealment aspect of Exercise Polar Bear. • Camouflage Committee memorandum no. 8: Cheap methods of darkening buildings. • Handwritten notes on camps (3pp). • Handwritten notes on war games (2pp). • Handwritten notes on airdrome camouflage (5pp). • Note cards on plastics and rubber moulds (3 cards). • 3 diagrams.
14	<p>1940-1945. Hardcover, blue, three-ring binder titled "Camouflage Volume 2." 26 x 36.5 x 6 cm. Contains material on:</p> <ul style="list-style-type: none"> • Notes and diagrams on the concealment of materials in North Africa by the 8th Army in 1942. • "Ruses and Stratagems of War" by General AP Wavell, C in C, India. • "Sonic" by LCol Brown. • "Tactical employment" by LCol Brown. • "Poplin/Naval Employment" by LCol Brown. • Italy: present battle conditions in forward and rear areas (includes 15 photos). • Camouflage of steam vapour plumes. • Middle East camouflage (include photos). • Notes on the lessons on the camouflage aspect of mountain warfare learned on exercise Goliath II. • Collapsible dummy figure (includes photo and diagram). • 28 photos of dummy devices for visual deception. Includes tanks, men, railway tracks and 25 pdr guns. • Camouflage in other theatres of war. • Extracts form AA notes on a visit to the 1st and 8th Armies by Brig WR Revell-Smith, DSO, MC, AM. • Screening of targets from aerial observation with particular reference to screening in moonlight. • Current German camouflage policy. • Camouflage report: Notes on enemy methods – Tunisia. • Camouflage clothing of the Japanese, Russians and Greeks • German decoys.

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	<ul style="list-style-type: none"> • Decoy fires on Admiralty sites. • Admiralty decoy scheme-Lights. • Night decoys: General Principles including Starfish instructions to Local Controls; Starfish instructions to Sgts. in charge of sites; QL and QF general instructions to Local Controls. • Descriptions on decoy fires. • Instructions for Q lighting. • Q lighting of Drem type Flare paths. • Specifications for the electrical supply and erection of fitting and equipment for Drem Q sites. • Specifications for the underground and overhead supply for Q sites. • Magnetic valve control. • Notes on Q sites. • Operational notes to NCOs in charge of Starfish. • General notes on RAF decoys. • Specifications of works to be executed in the construction of QF fires. • Specifications for the installation of electric supply to Q sites • Paints. <p>There is also an information booklet produced by the General Staff Pacific Command as a general guide for Pacific warfare. It includes the following:</p> <ul style="list-style-type: none"> • Organization of the Japanese Army. • Weapons: Japanese artillery characteristics. Includes Japanese field artillery methods; Japanese suicide boats; Japanese armoured material; Japanese ground rocket launchers (with diagrams). • Mines and booby traps (includes diagrams). • Japanese tactics. • Japanese ruses. • Training: the officers are getting knocked off. • Camouflage and concealment. • Japanese fieldworks (includes diagrams). • Amphibious craft (includes a large fold out diagram of several craft). • Tropical dangers. • Japanese recognition.
15	<p>10 July 1942. 3rd Civilian Defense Area, Civilian Camouflage School, Baltimore, MD. 3 diagrams and sketches for camouflage of an industrial complex. 45.5 x 50 cm or smaller. Used in courses in the Industrial Camouflage at Pratt Institute, Brooklyn, NY.</p>

Item number	Contents
	Drawings by Paul R MacAlister.
16	1942. Topographical map, Vernon BC. 63 x 76 cm (16 x 20.5 cm folded). Published by DND, GSGS, map no. 536.
17	<p>1942. Black, 3-ring binder containing typed notes on camouflage, with photographs and diagrams. Majority of the notes are from the Engineer Board, Camouflage Section, Fort Belvoir, Virginia. The binder contains the following information:</p> <ul style="list-style-type: none"> • Camouflage policy. • The law, which underlies protective coloration. • Camouflage on the Soviet Front. • Guerrilla Warfare. • Japanese camouflage on Attu. • Lecture notes on camouflage by Capt M Godfrey. • Psychological principles of camouflage. • El Alamein. • Large tree moving for defence planning. • Concealment lectures 1, 2, and 3. • Concealment of military transports. • Lecture notes by LCol Buckley, MC, RE on the history of camouflage in war. • Lecture notes by Capt Huskinson on the visibility of an object. • Notes on Ruses and Stratagems of War by General AP Wavell, C in C, India. • Diagrams on how to construct dummies and decoys. • Identification of camouflage installations. • General intelligence note no. 131 from the Pacific Command discussing the Beach Group in Amphibious operations. • Camouflage Development and Training Centre notes for the information of camouflage officers, No. 30.
18	<p>1942. Manual, "Passive Protection: Camouflage Materials. 20.5 x 24 x 2.2 cm. Prepared by the US Engineers office, California. Contains photos and records of tests from the Camouflage Laboratory, Los Angeles, on the viability of camouflage materials. The information includes:</p> <ul style="list-style-type: none"> • Granules. • Foliage. • Dyes. • Flat topping. • Texture. • Chopped palm fronds. • Floats. • Garlanded palm fronds on a tin can float. • Plaster.

Item number	Contents
	<ul style="list-style-type: none"> • Artificial rocks. • Flame and waterproofing liquids. • Clothes. • Burlap. • Chicken feather on runways.
19	<p>1942-1943. Soft cover, black, 3-ring binder, 25 x 29.5 x 3.5 cm, containing the following typewritten materials and photos:</p> <ul style="list-style-type: none"> • Welcoming address by Gen Warren T Hannum. • “Combat experiences in the Philippines” by LCol Henry Thorne. • “Combat experiences in Australia and New Guinea” by Lt McMahan. • “Combat experiences in Java” by Capt Dale. • “Grasses” by Capt HB Sprague. • “Smoke” by Lt Willman. • Camouflage: estimating the unit costs and data; Camouflage Section Engineer Board. • Camouflage: estimating the materials, costs and quantities; Camouflage Section Engineer Board. • Camouflage memorandum No.142: The Infra-red problem; Camouflage Branch, The Engineer Board, Fort Belvoir, Virginia. • Camouflage memo No. 125: How to make a camouflage Battle Dress; Camouflage Branch, The Engineer Board, Fort Belvoir, Virginia. • Camouflage memo No.127: The use of pigmented bituminous emulsion paints; Camouflage Section, Engineer Board, Fort Belvoir, Virginia. • Camouflage bulletin No. 7: regarding garnishing camouflage nets; War Department Office, Chief of Engineers, Washington. • Camouflage bulletin no. 5: Construction of decoy aircraft; War Department Office, Chief of Engineers, Washington. • “Camouflage for civilian industries and metropolitan utilities” by Capt Willard T Day. Headquarter, 9th Coast Artillery District, Presidio of San Francisco, CA. • Camouflage bulletin No. 4: specification for plant materials and shadows in camouflage; War Department Office, Chief of Engineers, Washington, DC. • Paint, camouflage for chicken feathers. • Memo for procurement of white traffic paint. • Memo for skin colouring. • Memo for camouflage, cotton and shrimp nets. • Memo for paint sprayer.

Item number	Contents
	<ul style="list-style-type: none"> • Memo for fabric. • Method of test for infrared reflectance. • Memo regarding the specifications for Bakelite resinous; War Dept. The Engineer Board, Fort Belvoir, Virginia. • Camouflage memo No.123: Use of calcium chloride in the preservation of foliage. • Papers on tentative specifications including: skin colouring compound; camouflage, cotton and shrimp nets; paint spraying units; fabric; paints; sandbags; cutters; paint mixing machine; finishing, treating and painting. • 18 8 x 10 photos showing a camouflaged air station in Santa Monica, CA, and the use of chicken feathers to cover tire tracks.
20	<p>1942-1943. Handwritten notes and diagrams on camouflage and misdirection in Egypt and the Middle East including:</p> <ul style="list-style-type: none"> • To deceive Rommel on the date of the sea offensive. • Battle of Megiddo. • Decoys in theatres of war. • Defence of Tubruk. • Types of decoys.
21	<p>1942-1945. Miscellaneous loose-leaf notes dealing with aerial photography and vision, 21.5 x 35.5 x 1 cm. Many from the Canadian Camouflage School in Vancouver, containing the following information:</p> <ul style="list-style-type: none"> • Concealment of headquarters. • Visibility of things and backgrounds. • Cameras for snow conditions. • The eye and the camera. • Air photographs and stereoscopes. • Japanese theatre of war. • Other theatres of war. • Camouflage and dummy positions. • Tilting and plotting. • Scales. • Concealment of a 4.2 mortar. • Strategic of operational camera. • Mosaics. • Concealment of motor transport. • Commentary to accompany the filmstrip "Visibility of Things."

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Item number	Contents
22	1942 – 1945. Folder: Visibility of Objects. 10 pages of typed material on visibility and 6 pages of handwritten notes on visibility.
23	October 1943. Camouflage pocket booklet, 21.5 x 35.5 x 0.5 cm. 61pp in length. Stapled together along the top edge. Issued by the G3/CAM/ Headquarters, Atlantic Command. Contains information on the following: <ul style="list-style-type: none"> • Surveying and drawing. • General construction. • Photography. • Miscellaneous data. Materials.
24	1942-1943. File folder: Operational Camouflage Reference. Contains a number of typed notes, diagrams, and photos pertaining to the different aspects of camouflage. The information includes information such as: <ul style="list-style-type: none"> • Visual deception. • Strategic camouflage. • 4 sheets containing aerial photographs of dummy installations, real installation and concealed installations. • 8 aerial photos of ground formations used for aerial deception. • Devices issued to syndicates. • Report on camouflage practice camp held at Farnham –Aug. 1943. • Camouflage lessons from the organization and operations in the Middle East from November 1941 to August 1942.
25	26 January 1942 - 2 August 1943. Folder, “First Course Notes – 2Lt MW Hayes.” Contains 81 sheets of handwritten and typed notes. Handwritten notes titles: <ul style="list-style-type: none"> • Background and ground patterns. • MT and AFV. • Airdromes. • Hutted Camps. • Stereoscope. • Paint, flat tops and nets. • Street fighting and field defences. • Supply specifications. • Overhead cover. • Lecture notes given by Captain Godfrey on camouflage. Mentions chicken feathers. • Industrial cam. • Lecture notes given by Capt. Rhodes on camouflage.

Item number	Contents
	<ul style="list-style-type: none"> • Plastics. • Construction criteria of course. • Casting molds of people. • Typed notes title: screens.
26	<p>February 1943. Black notebook containing handwritten notes and hand drawn diagrams on camouflage techniques. 20 x 32.5 x 0.5 cm. Cover of the notebook has “Records” printed across the front.</p>
27	<p>22 March – 18 June 1943. 7-ring, black binder containing handwritten notes from classes at Fort Belvoir, Virginia. 17 x 26 x 3 cm. Several loose-leaf notes at the back of the binder. They include:</p> <ul style="list-style-type: none"> • 4 sheets of math calculations. • 1 sheet titled summary evidence. • Typed test on military law. • A military law chart. • A message note form. • A diagram of a military installation. <p>Notes in the binder include information on:</p> <ul style="list-style-type: none"> • Materials. • Identifying objects in photos. • Nets. • Weaving. • Positioning. • Moulds. • Texturing. • Map reading. • Slopes and gradients. • Bearings. • Military law.
28	<p>April – May 1943. Soft cover, brown, stapled, notebook containing compilation of handwritten notes by Lt JAE Bennett at the OC Camouflage Training Centre, The Gables, University of BC. 20.5 x 33.5 x 0.7 cm. Notes include:</p> <ul style="list-style-type: none"> • Air reconnaissance report. • Camouflage ground recce report. • Air recce of a sea island defences camouflage report. • Concealment against field artillery. • Camouflage of guns. • Camouflage of air recce Report. • Camouflage recce report. • Hand drawn diagrams of Point Grey, Christopher Point, Jericho (English Bay).
29	<p>June – July 1943. 5 handwritten RCE (Royal Canadian Engineers) reports by Horne.</p>

Item number	Contents
	<ul style="list-style-type: none"> • Report on provision of 3-day camp accommodation for X Field Company, RCE, in the vicinity of 677867, Victoria. • Report on suitability of Prospect Lake road for the movement of Y Canadian Infantry Brigade from 596959 to 58059240. • Report on deliberate, deferred dem. of RR Br. at 56658855. • Report on rd. dem. of 683874 n. to x rd. 689880 to deny enemy of its use from direction of Cad. Dt., Victoria • Report on the appreciation of the situation by AEC Horne, Lt RCE at Cadboro Bay Area at 1600 hrs, July 1943.
30	<p>December 1943. Report of the Scrim Panel on the Production of Apparatus Camouflage, Garnishing, Coloured and Related Materials. 2 booklets. One has the subtitle "Appendix" while the other has the subtitle "Production Specimens". The latter is full of different colours of examples of Scrim. The scrim appears as woven twine. "Appendix" contains information on the following topics:</p> <ul style="list-style-type: none"> • Schedule of processes. • List of manufacturers. • Mildew and rot proofing. • Toxicity of antimony compounds. • Cotton Scrim. • Specification E/1301A. • Modification for antimony processes. • Modifications for sheets Hessian. • Ministry of Home Security Requirements. • Patent specifications. • Methods of testing scrim.
31	<p>1941-1943. Royal Canadian Engineers. Hardcover, blue, 3-ring binder, 26 x 36.5 x 6.5cm, containing typed lecture notes on the following topics:</p> <ul style="list-style-type: none"> • Building bridges. • Demolitions. • -Field geometry. • Ropes and spars. • Roads and tracks. • Field defences. • Accommodation and sanitation. • Organization of the Royal Corps of Engineers. • Detailed organization of a field company.
32	<p>1941-1944. Camouflage Volume 1. Hardcover, blue, 3-ring binder, containing course programs of 2 and 5 weeks for camouflage officers. 26 x 36.5 x 6 cm. Course material on various aspects of theory such as:</p> <ul style="list-style-type: none"> • Psychological principles of camouflage.

Item number	Contents
	<ul style="list-style-type: none"> • Electromagnetic spectrum and how it relates to photography. • Light and shadows. • Night observation. • Aerial observation. • Photo interpretation. • Stereoscopic vision and stereoscope. • Camouflage in snow conditions. • Medical services. • Concealment relating to self propelled artillery. • Report on the camouflage of a 17 pr gun on Sherman Tank. • Suggested specifications for plant materials for camouflage use. • Report on No. 1 Staff Officers Visual Course held at Camouflage Development and Training Centre, Farnham, Surrey, England. • Eyes of the enemy: Enemy observers and their characteristics. • Concealment in street fighting • Concealment in infantry positions. • Camouflage in nature. • Summary of extracts from an appreciation of German methods and use of materials in Northwest Europe. • Colour transparencies on camouflage installations. • Manual: Anti-Aircraft command procedure instruction No.11. • Manual: The Concealment of Anti-Aircraft defences. • Manuals: Infrared camouflage paints. • Manual: How to make Polaroid Vectographs. • Manual: Camouflage Committee Memoranda, No. 9 Night Camouflage. • Manual: Notes on Aerial Observation at night, Bulletin No. B13. • Photographs and diagrams.

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Item number	Contents
33	<p>1943-1944. Collection of 50 letters to and from other armed forces members regarding military matters. Majority of the letters are typed. Many of them are on letterhead such as:</p> <ul style="list-style-type: none"> • Royal Canadian Army Service Corps, Camp Borden. • The Department of National Defence, Army.

	<ul style="list-style-type: none"> • Officers Training Centre, Brockville, ON. • University of Toronto, Department of Pathology and Bacteriology. • Ontario Department of Lands and Forests, Surveys Division. • Ontario Motor Vehicles Branch, Department of Highways. • Royal Canadian Army Service Corps, Red Deer, Alberta. • Coast Artillery Training Centre. • The Tank Canada, Canadian Armoured Corps Headquarters, Camp Borden, Ontario. • Canada Packers Ltd, Toronto.
34	<p>1943 – 1944. Course notes issued by the Canadian School of Infantry, Battle Wing, Vernon, BC. Typed notes, 21.5 x 33 x 1.5 cm, containing information on the following:</p> <ul style="list-style-type: none"> • Japanese Army. • Weapons handling. • Crossing obstacles. • Section formations. • Leadership. • Assault drills. • Locating the enemy. • Siting section posts in defence. • Fire orders and fire controls. • Mechanics of handling a platoon in an attack. • Fire platoons. • Types of fighting. • Night attacks. • Reverse slopes. • Anti tank guns. • Mortar and Mortar platoons. • Artillery. • Carrier Platoons. • Explosives and demolitions. • British minefields. • Mines. • Communications. • Battle drill objectives. • Verbal orders. • Platoon flanking drills. • Cooperation between arms. • Attacking on a strong point. • Patrolling. • Bullet-proofing.
35	<p>1 January 1943 – 1 August 1944. Atlantic Command Camouflage Bulletins. 14 bulletins, 21.5 x 35.5 cm., prepared by Capt CG Wise,</p>

	<p>GSO III (Cam) HQ, Atlantic Command. They are and contain information on:</p> <ul style="list-style-type: none"> • No. 1: Steel wool for camouflage; winter camouflage; emulsion paints; training. • No. 2: Paints and painting; chicken wire and steel wool; pre-garnished camouflaged nets; garnishing – Impregnated cotton. • No. 3: Treatment of scarred ground. • No. 4: Fortress camouflage officers; waste sludge oil; MT parking; visibility of an object; standard camera colour charts; wire netting. • No. 5: Personal concealment • No. 6: Ruses and Stratagems of War; pointers on camouflage; dummy tracks on grassland; posters on MT concealment. • No. 7: Security; paint; German camouflage doctrine; posters. • No. 8: Distribution of the bulletin; posters; tin can garnishing. • No. 9: Collapsible dummy figure; quick release mechanism; camouflage analysis; A/C Camouflage pocket booklet; steel wool – repainting; how to fold a camouflage net • No. 10: Posters; camouflage lessons from the Tunisia Campaign; generic chart; paint types III and IV; dark blanco. • No. 11: Chlorophyll stabilization; camouflage for junior commanders on mobile operations. • No. 12: Camouflage training for jungle warfare; use of Red Cross on RAMC equipment; CATM references. • No. 13: Procedure in transplanting trees and shrubs; tall tales. • No. 14: Current German camouflage policy. • No. 15: Observations on the use of ground for concealment in mountainous and enclosed country.
36	<p>June 1944. Canadian Army Training Memorandum NO 30. In booklet format, 14 x 24.5 x 0.2 cm, 47 pp. Prepared by the National Defence Headquarters. 2 copies. The memo deals with:</p> <ul style="list-style-type: none"> • Security. • Camouflage. • Sniping. • Artillery training. • Officers are gentlemen. • Operations in the Mediterranean Area. • Report on the Choiseul Operation. • Infantry and support groups. • The Germans- How they fight. • Battle drill and the Piat.

	<ul style="list-style-type: none"> • Films. • Schedule of courses.
37	<p>June 1944. Canadian School of Infantry manual, No. 1 Senior Battle Wing, 3rd Course Precis. 20.5 x 32.5 x 1.5 cm, 244 pp. Objective of the manual is to acquaint Company Commanders with the latest tactical doctrine on the Battalion level.</p>
38	<p>October 1944. Magazine, <u>Tank Canada</u>, Vol.4, No. 10. Official journal of the Canadian Armoured Corps. Contains article Capt EA Horne, "Vehicle Signature and the Enemy."</p>
39	<p>20 November 1944. Circular: "Japanese in Battle." 21 x 33 x 0.3 cm, 24 pp. Prepared by the General Staff, Pacific Command. Typed sheets stapled together. Review of Japanese tactics in the field, collected from British publications. Based mainly on experiences in Burma and is a result of observations of Japanese practices in the field rather than on the rules laid down in Japanese military handbooks. Main headings in the circular are:</p> <ul style="list-style-type: none"> • Tactical characteristics and the principles of war. • Defence. • Counter attack. • Patrols and raids. • Roadblocks.
40	<p>1942-1944. Instructors manuscripts and tests on camouflage prepared by the Engineer School, Fort Belvoir, Virginia. Typed. Titles:</p> <ul style="list-style-type: none"> • Air observation by camera. • Blending; position and discipline. • Blending; construction. • Choice of position. • Test on Deceiving. • Test on blending. • Hiding; position and discipline. • Deceiving; position and discipline. • Deceiving; construction. • Camouflage in the zone of the interior. • Camouflage in the zone of communications, part I. • Camouflage in the zone of communications, part II. • Estimating: Section I – instruction; Section II - Camouflage estimating data; Section III – Example problems; Section IV – Night work problem; Section V - Solution to problem. • Camouflage in combat zone, part III. • Geographic and climatic influences on camouflage. • Field expedients. • Blackout. • Camouflage construction at night – Assignment and outline

	<p>of procedure.</p> <ul style="list-style-type: none"> • Camouflage responsibility, organization and supply. • Sop-Camouflage procedure and discipline. • Camouflage teaching methods and training aids. • Camouflage; Basic 2-hour course. • Ten-hour camouflage course for EM. • Thirty-hour camouflage course for EM. • Presentation of Camouflage course. • Camouflage principles quiz. • Orientation and organization. • Ground patterns of peace and war. • Aerial photography quiz. • Camouflage materials, tools, machines and methods. • Air attack against ground objectives. • Air observation by eye. • AAF Training standard, No. 40-1. Camouflage training, all units and individuals. War department, Headquarters Army/Air Forces, Washington. • Air view of specified terrain. • Use of camouflage materials and tools. • Information Sheet for Officers reporting for camouflage course. • Notes on stereovision. • Camouflage materials, tools and methods, part II. • Erection of quick opening covers. • Camouflage of AA Artillery. • Flat top design and erection procedures. • Erection of flat tops (includes fold out diagram). • Hiding – Construction. • Construction of decoys. • Materials. • Operational Camouflage, Part I. • Air photography and interpretation (includes photographs). • Enemy camouflage. • Camouflage in combat zone, part I. • Camouflage in combat zone, part II.
41	<p>1944. 3 topographical maps of Ex Polar Bear near Williams Lake to Bella Coola, BC. Folded and have adhered to one another. Prepared by DND, GSGS. Numbered 659 B-1, 659 B-2, and 659 B-4.</p>
42	<p>1944. Miscellaneous notes on war games. Handwritten on DND letterhead.</p> <ul style="list-style-type: none"> • Secret exercise called “Force Skirt” (4pp). • “37 Bn. Royal Gables Regt” (4pp).

	<ul style="list-style-type: none"> • “Information”(4pp). • “Pro-forma. 00 for the attack,” typed (2pp). • Typed notes on concealment aspect of exercise “Polar Bear” • Typed notes on “Exercise Eskimo” by Capt JL Miller. • Outline for the discussion of the OYAMA Exercise at the S-17 Canadian School of Infantry, Vernon, BC.
43	<p>January 1945. Booklet, War Office Camouflage Notes, Volume 1, Issue no. 1. 21.5 x 26 x 0.3 cm. Prepared by SWV8, the War Office. Information is bound by 2 metal clasps in a brown folder. Contains information on:</p> <ul style="list-style-type: none"> • Operations. • Training. • Technique, Equipment, organization and ideas.
44	<p>16 January – 25 February 1945. Exercise Eskimo: Interim Report. 21.5 x 35.5 x 1.5 cm, 180 pp. Sheets are stapled together. Copy 11-A. Report on engineer tasks peculiar to sub-arctic conditions as encountered on Ex Eskimo. Presented in 12 parts:</p> <ul style="list-style-type: none"> • Roads. • Camouflage. • Water supply. • Mechanical equipment. • Bridging and ice crossings. • Demolitions, land mines and booby traps. • Field defences. • Preparations of unit areas. • Advanced landing groups. • Training of troops. • Miscellany. • Answers to prepared questions.
45	<p>December 1944 - January 1945. War Office Technical Intelligence Summary No. 158 and No. 159. 21.5 x 35.5 x 0.2 cm. Contain notes, diagrams and photos pertaining to:</p> <ul style="list-style-type: none"> • Small arms, artillery and armoured fighting vehicles. • Camouflage. • Engineer equipment. • Fieldworks. • Chemical warfare.
46	<p>19 January 1945 – 5 August 1945. Pacific Command: General Intelligence Notes. Typed notes, 20.5 x 33 cm., prepared by the General Staff, Pacific Command. Each set of notes is numbered.</p> <ul style="list-style-type: none"> • No. 193: Japanese doctrine on infiltration; plans and equipment; tactics. • No. 194: Japanese failures and mistakes on the attack on India.

	<ul style="list-style-type: none"> • No. 196: Japanese diversionary tactics; organization and doctrine; attack in force; concealed attack; Southwest Pacific • No. 197: New Japanese army insignia. • No. 198: Japanese morale; Japanese upbringing and education and their results; some “Human weaknesses” of the Japanese; Japanese reactions to weapons and tactics; summary. • No. 199: Japanese defence against amphibious operations. • No. 200: The Japanese soldier in retreat; battle lessons special report; spiritual power; fear of automatic rifles; faulty photo-interpretation; bad medical facilities; ravages of Malaria.
47	<p>1943-1945. Miscellaneous notes. Pocket notebook and writing tablet titled “Militia Book 36.” On the cover: Capt Horne Cam. Wing A-6 CETC Polar Bear Exercise. The first couple of pages have been torn out and the rest of the tablet is empty. Pocket notebook is black and contains short note on camouflage and meetings. Other information includes:</p> <ul style="list-style-type: none"> • Department of National Defence letterhead • Outline for a two-week course for the Camouflage Wing, A-6, CETC, Vancouver. • Special order no. 71 from Headquarters, the Engineer School, Fort Belvoir, Virginia. • Improvements and additions to school. • Page 5 of a typed document discussing camouflage of battery positions.
48	<p>May 1942. Collection of Canadian Camouflage School memorandums. 2 memos, stapled together.</p> <ul style="list-style-type: none"> • Colouring of airdrome runways • Specification for formulating and applying cement stain two-coat system. • Specification for formulation and application for sawdust stain.
49	<p>No date. Camouflage drawing of a factory and residential area. 3 black and white aerial photos of a large building next to a residential area. Drawing, 45 x 51 cm is an aerial drawing of the same area. Scale as 1 inch: 1 foot.</p>
50	<p>[Circa 1944]. Site plan of factory camouflage design, 3 black and white aerial photos of a factory, and 1 of a sketch from the University of Pennsylvania School of Fine Arts. Large site plan measures 45 x 50 cm. Scale is 1 inch: 64 feet.</p>
51	<p>No date. Topographical map, Wetaskiwin, AB. 53 x 81 cm, (13.5 x 21 cm folded). Published by DND, GSGS. No. 631-C. Scale is 1: 25,000.</p>
52	<p>No date. Battle drill and its evolution. Collection of typed notes,</p>

	<p>20.5 x 33 x 1 cm, 115 pp. Written and assembled by 47 Division (London) Battle Drill School. Include the following information:</p> <ul style="list-style-type: none"> • Methods of instruction. • Study of the ground. • Infantry platoons. • Types of Drills: Infiltration; Assault; Pincer movement; Village fighting; Clearing a house; Clearing a wood or isolated area; Crossing a defended river; Night patrols. • Tank traps and tank hunting. • Rules of conduct. • Types of defence: Isolated defence; Mutual defence; Line defence; Guerrilla defence; River line, estuary, canal coast of artificial obstacle defence. • The tactical picture on which battle drill is based and its application to higher formations. • Coordination and the brains trust.
53	<p>No date. Exercise notes on Camouflage techniques. Black notebook, 20 x 32.5 x 0.5 cm, containing handwritten notes and hand drawn diagrams on camouflage techniques. Cover of the notebook has "Records" printed across the front cover.</p>
54	<p>No date. War Office AFV Recognition wall chart no. 1. 57.5 x 87.5 cm (22 x 28.5 cm folded). Shows differing views of drawings of cruiser tanks, Army tanks, AFVs and armoured cars.</p>
55	<p>No date. Camouflage: Troop Housing and Facilities. Small green soft cover booklet, 11 x 16 x 0.5 cm, 46 pp. Prepared by the Directorate of Base Services Headquarters, Army Air Forces, Washington, DC. 2 copies. Includes information on the following:</p> <ul style="list-style-type: none"> • Factors influencing the degree of concealment. • Siting in general. • Siting in particular. • Detailed treatment of ground layout. • Merging and disguise of huts. • Ground patterning and planting. • Tentage. • Headquarters. • Ammunition dumps. • Gasoline dumps. • Supply and dumps.
56	<p>3 November 1941. Camouflage: Military Training pamphlet NO. 46, Part 4: Vehicles, wheeled and tracked. Small booklet, 12 x 18.5 x 0.2 cm. Prepared under the direction of the Chief of the Imperial General Staff. Discusses ways in which to hide vehicles from air observers. 3 copies.</p>
57	<p>March 1942. Protective Concealment: Civil Defence. Soft cover booklet, 20.5 x 26.5 x 0.5 cm, 68 pp. Published by the United States</p>

	<p>Office of Civilian Defence, Washington DC. The booklet refers to:</p> <ul style="list-style-type: none"> • Considerations. • Problems. • Techniques. • Procedures and organization. • Bombing methods. • Artificial smoke and fog. • Treatment to reduce visibility of existing concrete wearing surfaces. • Materials.
58	<p>29 April 1942. Camouflage Information Bulletin No 13. 20.5 x 26.5 x 0.2 cm, 36 pp. Prepared by the Military Intelligence service, War Dept, Washington, DC.</p>
59	<p>27 May 1942. Camouflage for the Army Air Forces. 32-page booklet pertaining to the value of camouflage, planning for camouflage installations, camouflage methods, reduction of visibility, techniques and camouflage discipline. Introductory letter stapled to the front cover, signed by MF Harmon, Major General, USA, Chief of the Air Staff. 20 x 25 x 0.3 cm, soft cover. Prepared by the Engineer Section, Director of Base Services, HQ, Army Air Forces.</p>
60	<p>May 1942. Camouflage Bibliography. Small booklet, 11.5 x 17.8 x 0.1 cm, 8 pp. Reprinted from the Pratt Institute Library Quarterly Booklist, Series VI, May 1942, No. 8.</p>
61	<p>1942-1943. Criteria for Dispersed Airdromes. Booklet, 20 x 26.5 x 0.5 cm. Prepared by the War Department, Headquarters of the Army Air Forces, Washington, DC. Has other leaflets that have been added to it. Contains information on:</p> <ul style="list-style-type: none"> • Conventional symbols peculiar to dispersal. • Site selection. • Suggested airdrome patterns. • Taxiways. • Aircraft parking. • Hard standing locations. • Squadron housing. • Hospital layouts. • Runway approach zones. • Gasoline layout. • Ordnance high explosive storage. • Night lighting. • Dispersed bomb storage areas. • Minimum clearances. • Runway approach zones.
62	<p>December 1942. Protective Concealment for Airfields and other Fixed Installations. Small technical manual, No. 5-266, 14 x 21.5 x</p>

	0.5 cm. Published by War Department, Washington, DC.
63	15 December 1942. Artificial Texture and Coloration of Paved Surfaces. Memorandum No. 140, 20.5 x 26.6 x 0.3 cm, 11 pp. Prepared by the Camouflage Branch, Engineer Board, Fort Belvoir, Virginia. Booklet format. 4-page typed letter to a Mr. James C Rose of Tuttle, Seelye, Place and Raymond Consulting Engineers and Architects, Fort Dix, New Jersey. Written by Capt Fred D Vincent, Jr., of the Corps of Engineers, Camouflage Branch. Vincent attempts to answer several questions on camouflage.
64	31 December 1942. Interpretation of Aerial Photographs. Soft cover technical manual, 20.5 x 27 x 1 cm., 219 pp. Prepared by the War Department, Washington DC. To be used by officers and enlisted men charged with the tactical interpretation of aerial photos for the Army Ground Forces and Army Air Forces. Manual deals with the following: <ul style="list-style-type: none"> • Landforms. • Aerial view. • Scale and orientation of photos. • Practical identification. • Comparative photos. • Camps and bivouacs. • Troop movement. • Supply installations. • Antiaircraft positions. • Anti-mechanized defence. • Field artillery positions. • Seacoast defence. • Engineer activities. • Advanced landing fields. • Camouflage. • Reconnaissance from photos. • Defensive positions.
65	1942. Industrial Camouflage Manual. 22 x 28 x 2 cm, 128 pp. Prepared for the Industrial Camouflage program at Pratt Institute, Brooklyn, NY, by Konrad F Whitman and published by Reinhold Publishing Corporation, 330 West Forty-Second Street, New York, USA. Contains notes, photos and diagrams on the following: <ul style="list-style-type: none"> • Visibility. • Bombardment and effect of explosions. • Criteria for efficiency of industrial camouflage. • Problems of decentralization and new types of designs. • Industrial camouflage principles, methods and materials. • Models and examples for camouflage practice. • Typical report for camouflaging a factory.
66	April 1944. Camouflage: Military Training pamphlet No. 46. Part

	<p>3: Huts, Camps and Installations. Small booklet, 12 x 18.5 x 0.2 cm. Prepared under the direction of the Chief of the Imperial General Staff.</p>
67	<p>1939-1945. 4 magazine articles pertaining to camouflage:</p> <ul style="list-style-type: none">• “How to Baffle a Bombardier” by Capt Merrill De Longe of the Air Corps. Published in <u>Life Magazine</u>.• “Industrial Plant Protection. ” 11-page article, August 1942. Pages have been stapled together.• “Camouflage Data is Correlated: Pratt Institute to Publish Results of Studies.” 7-page article, February 1942.• Small photo showing General Sir Claude Auchinleck exiting the desert-camouflaged headquarters.

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